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A SCALP-FACE.
A NEW PLASTIC OPERATION.

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The face is the battlefield of plastic surgery. Defects caused by faulty development, trauma, and destructive affections, occur here more frequently than in any other region of the body. Epithelioma, tuberculosis, and syphilis are the three diseases which so often lead to extensive destruction of the tissues of the face, regardless of their anatomical structure, and which after cure or removal leave large defects and disfigurement that must be remedied by a plastic operation. Most of the plastic operations on the face are performed for their cosmetic effect. Vanity is a part of human nature, and differs only in degree in the young and the old, the civilized and the uncivilized, the beautiful and the homely. Tumors and other affections of the face excite early concern, so that treatment is sought when similar conditions in less conspicuous parts of the body would create no uneasiness in the mind of the patient, much less awaken a desire for relief. In some cases face defects are so extensive that plastic operations must be performed, not only for the purpose of removing an unsightly deformity, but at the same time with a view to restoring important functions. Such a case has been made the subject of this brief communication. The great vascularity and mobility of the facial skin present the most favorable conditions for all kinds of plastic work for the restoration of parts lost by injury or disease, and for the removal of disfigurements. Superficial defects can be remedied by transplantation of skin from remote parts of the body by the methods devised by Reverdin, Thiersch, Wolfe, or Krause, according to the nature and extent of the defect. Large and deep defects, such as the complete loss of one of the lips or cheeks, tax the technical resources of the surgeon most severely in planning his operation with a view of meeting both the functional and cosmetic requirements. Only too often he in vain consults the text books for the desired information, and is forced at last to plan and execute an operation for which he has no precedent. The plastic surgeon must be resourceful. He must be familiar with the principles which underlie the plastic art, but he must rely on his own resources in carrying out the details. Each case must be studied on its own merits, and the plans made according to the indications presented and the nature of the environments. A striking defect of the present status of plastic surgery of the face is the difficulty encountered in restoring lost muscle tissue and muscle function. A new lip, a new cheek, or a new eyelid made by the surgeon may be quite satisfactory from a cosmetic standpoint, but is always devoid of muscle function. The complete loss of a lip or a cheek not only constitutes a hideous disfigurement, but likewise interferes with the prehensile function of the mouth, permitting the escape of saliva and food during mastication, and impeding perfect utterance of speech. It was an aggravated case of this kind that I desire to report, with a description of the different operative procedures I had to resort to in restoring the enormous facial defect.

Case. *Extensive scalp flap for restoration of both cheeks and upper lip. Temporal flap for eyelids. König's rhinoplasty.* The patient who was subjected to the above operation for a most ghastly face defect was Christian Madsen, thirty-one years of age, a native of Denmark, now residing in Nebraska. He is married and the father of a healthy child. Family history without a taint and acquired specific disease can be safely excluded. He is under medium size and fairly well nourished. He is a farmer by occupation, and has lived a number of years in the State in which he now resides. He had an attack of illness when he was twelve years of age, the nature of which he is unable to state, but since that time he has considered himself in perfect health until the beginning of the affection of the face which gave occasion to treatment that resulted in such extensive destruction of tissue. Three years ago, a small swelling appeared in the median line of the upper lip, just below the nasal sæptum.

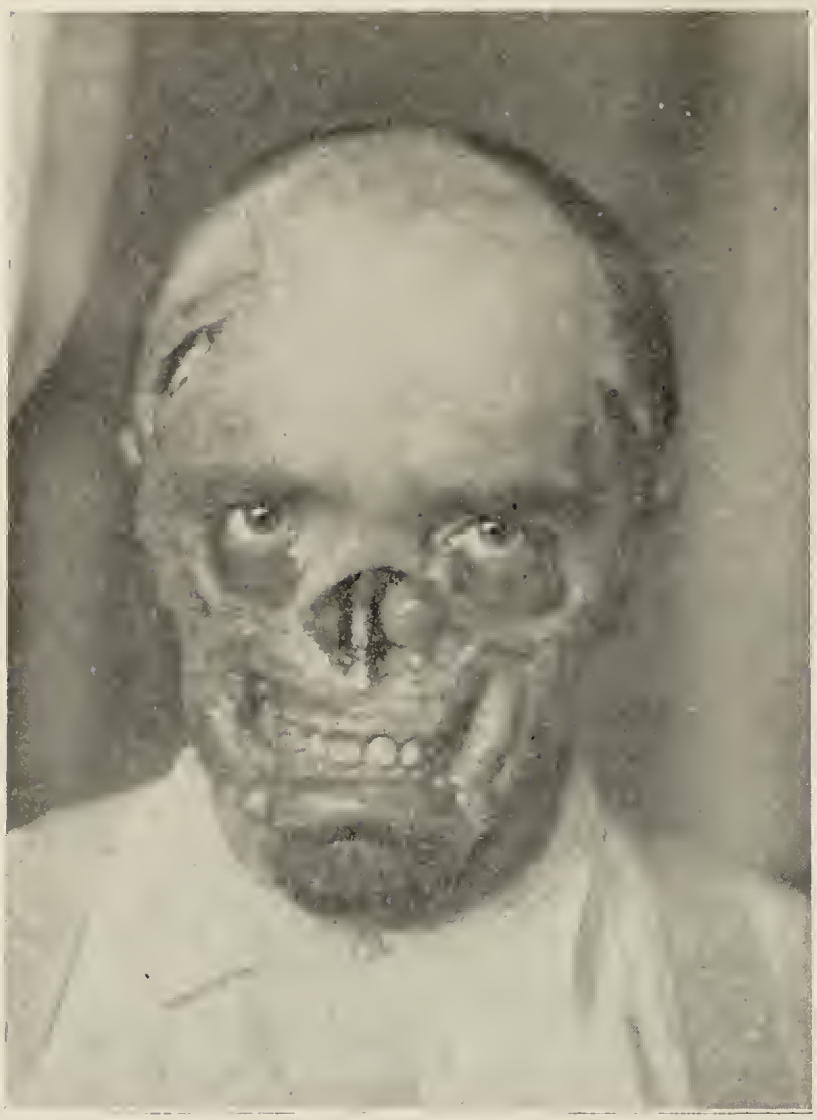

FIG. 1.—Appearance of the patient at time of first consultation.

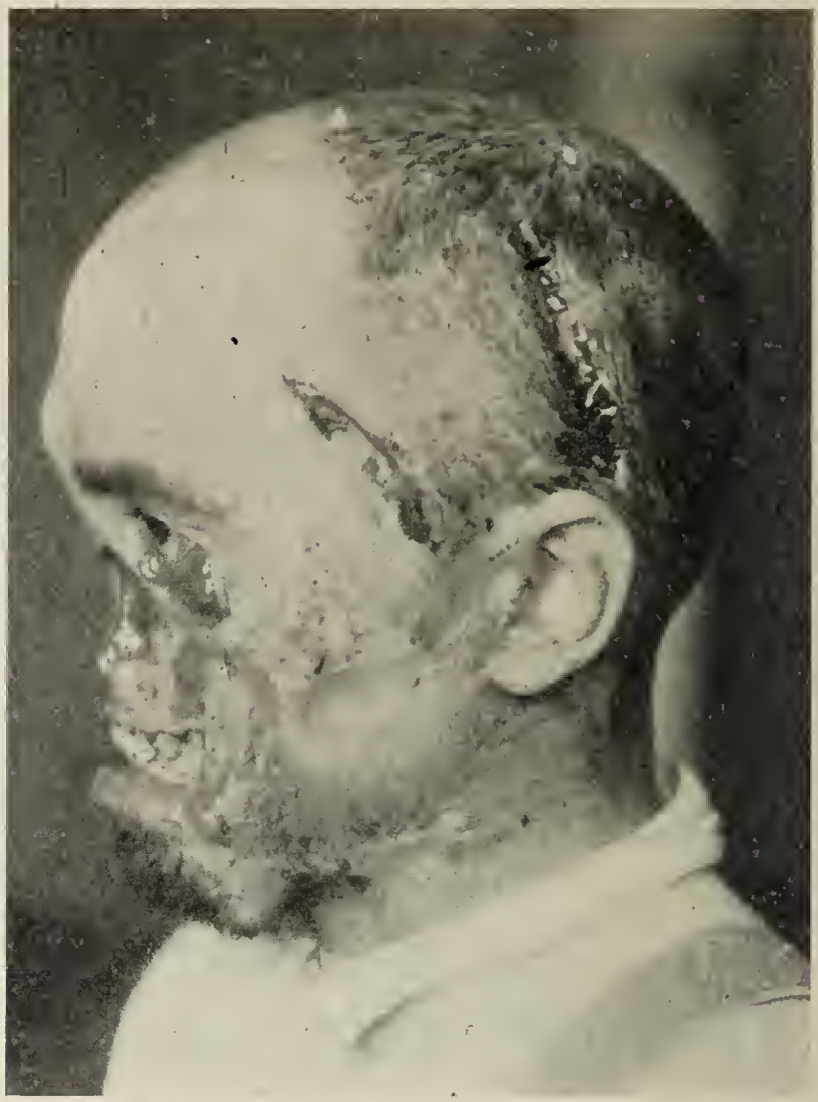

FIG. 2.—Incisions for flap on left side.

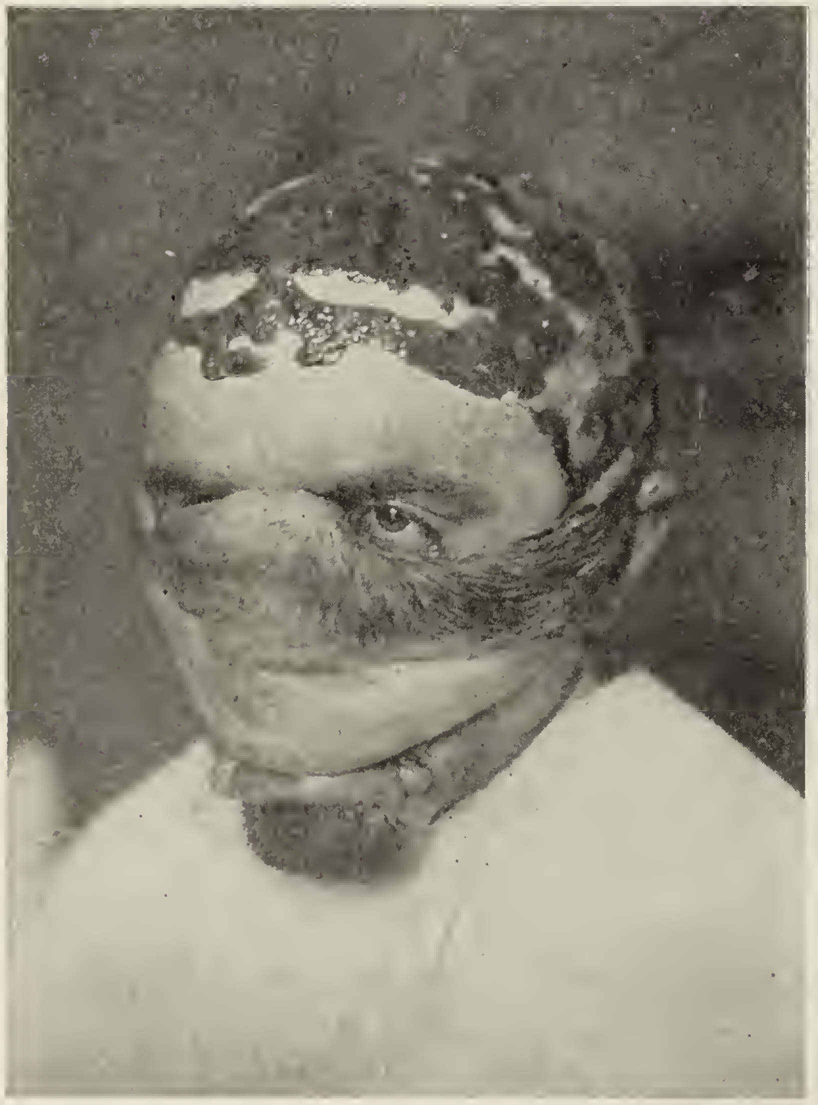

FIG. 3.—The flap lifted from its bed and lowered over the eyes.

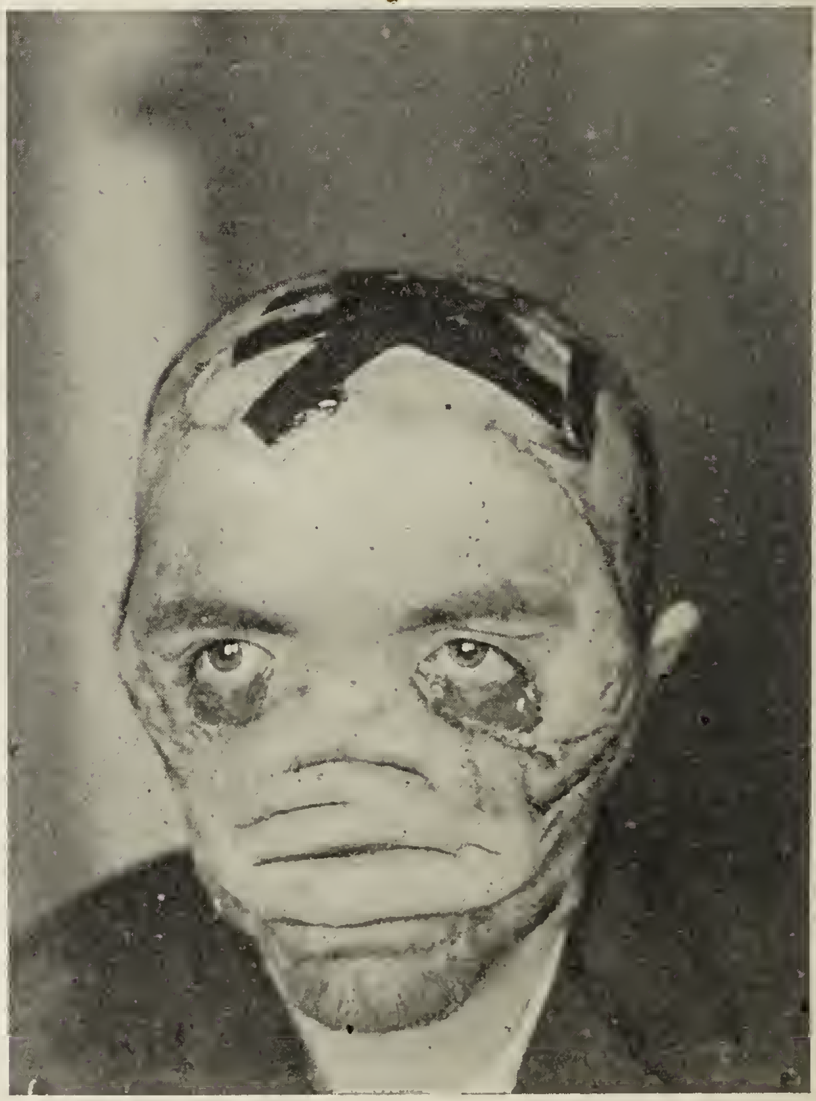

FIG. 4.—Result. The black stripes are gutta percha tissue.

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This swelling he describes as a "yellow pimple." Six months later he consulted a physician, who prescribed an ointment. At times the soreness would disappear and the swelling become smaller, but the patient could always feel a hard nodule. During the summer of 1900 it disappeared entirely, but returned during the latter part of November, the recurrence being attributed by the patient to a cold attended by great irritation of the nasal mucous membrane. The swelling increased in size and became painful and tender. He consulted a clergyman who had attained some notoriety as a cancer doctor, who had no hesitation in pronouncing it a cancer. He applied a caustic paste which caused intense pain and extensive sloughing. This heroic treatment was continued for ten weeks. At the end of this time, the nose, the whole upper lip, both cheeks, and both lower eyelids had sloughed away. The patient asserts that during the entire treatment he was kept under the influence of opiates and was only partially conscious of what was being done. He was confined to his bed until the following spring, during which time he was very weak. The extensive surface healed slowly by granulation, cicatrization, and epidermization, and the general health gradually improved. The loss of both cheeks and the upper lip resulted in the continuous escape of saliva and a part of the food during mastication. He applied to several noted surgeons of Nebraska for relief, but all of them refused to undertake the task. He came under my observation at the St. Joseph's Hospital, in June, 1901. His appearance at that time is well shown in Fig. 1. The upper lip, cheeks, nose and both lower eyelids absent; conjunctivæ of lower eyelids everted and firmly attached to the underlying bone, extremely vascular and granular. Lacrymal ducts destroyed and obliterated by cicatricial tissue. Turbinated bones exposed, mucous lining of what remains of nasal passages swollen and very vascular. Lower lip everted by the masses of scar tissue on each side. Upper and crowns of lower teeth exposed. Upper maxilla covered with thin scar tissue firmly attached. General health of the patient fair. No indications of visceral disease or specific infection. No skin eruption or glandular hyperplasia. It was my intention first to restore the upper lip by a plastic operation, consisting in the taking of a flap from the side of the neck and lining the inner surface with thin skin flaps from over the angles of the lower maxilla; and later to cover the remaining face defect with flaps from the temporal regions. An attempt in this direction was made a few days after the patient entered the hospital. It proved a complete failure. The flaps sloughed, leaving the face, if anything, in a worse condition than before the operation. I then recognized the necessity of resorting to the scalp as the only source of tissue supply with which to cover the skeleton face. I advised the patient to return to his home and enter my surgical clinic at Rush Medical College in the fall, prepared to remain for several months, as it was evident that a number of operations would be required to accomplish the desired object.

The patient returned as requested, and entered the Presbyterian Hospital during the first week in November, 1901. All the subsequent operations, twelve in number, were performed before the class in the surgical clinic of Rush Medical College, in affiliation with the University of Chicago. I decided to take a large flap from the scalp from ear to ear, and wide enough to cover the whole defect. As this plan appeared to be the only feasible one to borrow the necessary amount of tissue from the neighborhood, it became necessary to exercise the greatest caution against sloughing of the immense flap, and to guard against subsequent undue contraction by lining with skin that part of the under surface of the flap which would become ultimately a part of the cavity of the mouth before transferring the flap into its final position. The first object was realized by detaching the flap in different stages, and by lowering it gradually into position; the second indication was met by lining the under surface of the central two thirds of the flap with Thiersch's skin grafts before it was mobilized from its bed. The quite extensive baldness and excellent condition of the scalp constituted favorable conditions for the plastic procedure as planned. The entire scalp was thoroughly shaved and disinfected. Chloroform was the anæsthetic used in all the operations requiring general anæsthesia.

November 7th, the base of the flap on the left side was made by making the two incisions shown in Fig. 2, taken four weeks after this operation. This part of the flap was detached from the temporal and occipital fascia, and reunion was prevented by interposing between the wound surfaces broad strips of gutta percha tissue, and the wound dressed in the usual manner.

November 12th, the same operation was repeated on the opposite side and the wound treated in the same manner.

November 26th, the two anterior lateral incisions were united by an incision across the frontal eminences extending down to the fascia of the occipito frontalis muscle, from which the entire flap was lifted away. That part of the margin of the flap which was to form the lip was lined with a thin, narrow, long skin flap from the forehead, which was sutured to the under surface of the flap with catgut. The remaining part of the flesh under surface of the flap was covered with large Thiersch's skin grafts taken from the trochanteric region. These grafts were protected with strips of gutta percha tissue. The whole head was covered with a large gauze compress saturated with warm normal salt solution, and heat and moisture were retained by placing over it a gutta percha cover, and the whole dressing was held in place by a gauze roller. The new prolabium of skin united by first intention as well as the skin grafts.

December 3rd, the posterior incisions were extended within two inches of each other.

December 12th, the flap was completely detached, but remained in place, adhesion being prevented by the use of strips of gutta percha tissue.

December 21st, the flap was lifted from its bed and lowered resting over the eyes (Fig. 3), and the large granulating scalp wound was paved with Thiersch's skin grafts from the trochanteric region. Flap and field of skin grafting covered with salt water compress. Thiersch's skin grafting only in part successful and had to be repeated later.

January 2, 1902. The flap was sutured in position. From the lower angle of the anterior incisions an incision was made through the scar tissue, and, by reflecting the tissues on each side, a wide pathway was made for the attached parts of the flap. The upper maxillæ were vivified by dissecting off the scar tissue close to the alveolar process with forceps, knife, scissors, and sharp spoon. All the soft tissues with which the margins of the flap were to be united were thoroughly vivified, including the skin at the base of the nose. I was very apprehensive that the flap would fail to unite throughout. This fear proved to be unfounded, as union occurred throughout, with the exception of a limited space immediately below the nares, which was closed later after the nasal cavity had been opened by a transverse incision through the flap at the desired point. The result of the operation is well shown in Fig. 4. (The black stripes are strips of gutta percha tissue.)

April 10th. The left lower eyelid was made by taking a flap from the corresponding temporal region. The extropic inflamed conjunctiva was dissected away from the inferior maxilla to which it was firmly attached, and after lifting it to its normal level, the flap was sutured over it, using for this purpose a few silkworm sutures, the remaining ones being fine horsehair and catgut sutures. Special care was taken in suturing the conjunctival and upper flap margin accurately together. Speedy union by primary intention. Immediate and remote cosmetic and functional results excellent.

April 22nd. The same operation was performed on the opposite side with a similar satisfactory result. A few cilia remained, and as they continued to be a source of irritation they were removed by electrolysis. The hair of the flap was destroyed by the use of the Röntgen ray.

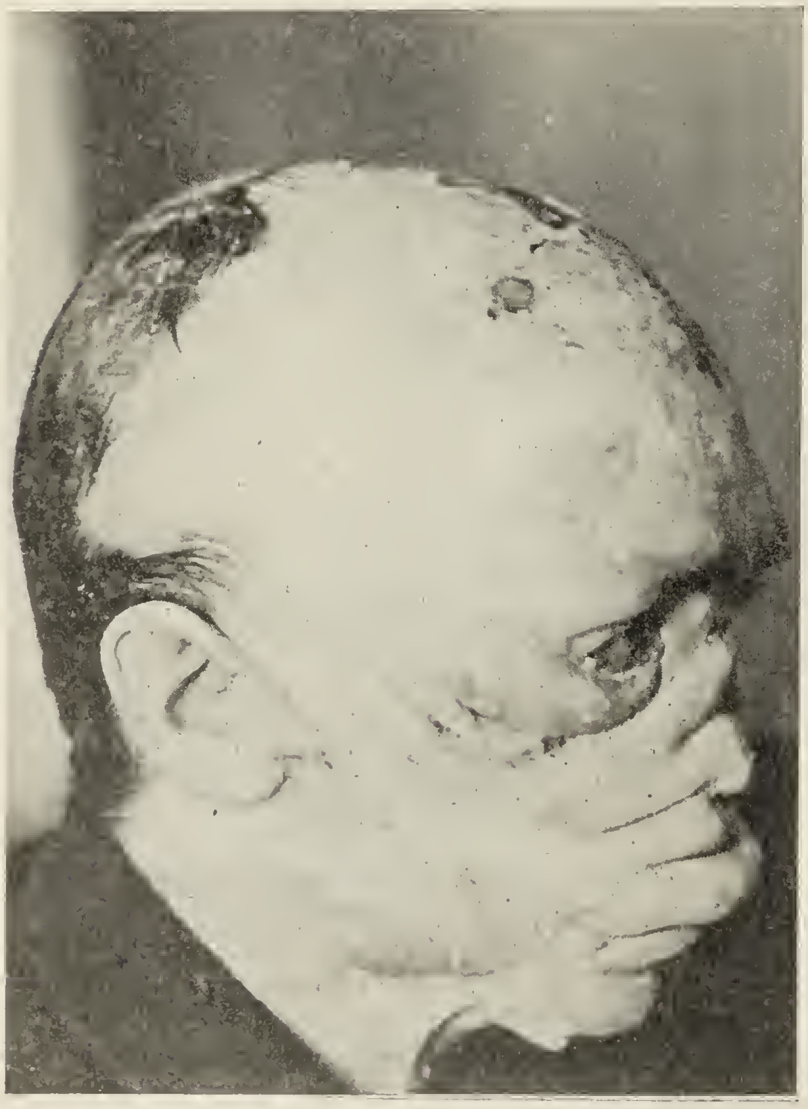

FIG. 5.—Formation of the eyelid by a temporal skin flap.

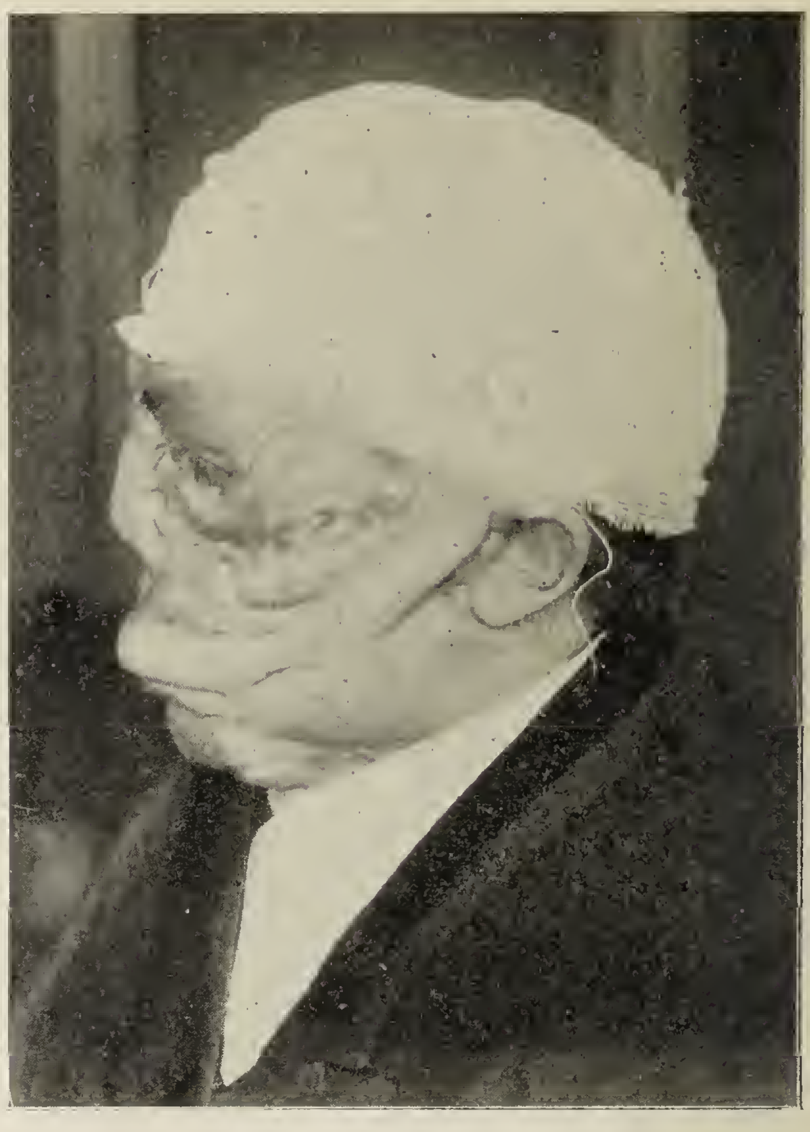

FIG. 6.—Final result.

The plastic operation for the function of the eyelids by a temporal skin flap is shown in Fig. 5. Before the patient left the hospital for the summer the nasal passages were opened by a transverse incision, which was kept open by the wearing of triangular tubes of lead, which corresponded in size and outline with the lumen of the passages. The patient returned in excellent health, during the winter semester of 1903, for the promised rhinoplastic operation. The upper lip appeared to be a little too long and disfigured by a transverse gutter-like depression. A long wedge-shaped piece, including the depression, was excised, and the wound sutured with horsehair. This little operation contributed much in improving the appearance of the upper lip. The last operation of any consequence was the rhinoplasty by König's method. The central eminence of the flap which corresponded with the location of the lost nose, was incised in a vertical direction in the median line of the face. The incision penetrated only one half of the thickness of the flap, and extended as far as the common nasal opening. The skin was then reflected on each side, making a wide bed for the frontal flap. The frontal flap, taken from the right supraorbital region and forehead, included the skin, pericranium, periosteum, and a bar of bone half an inch in width and nearly the entire length of the flap. This bar of bone was removed with a narrow chisel from the external table of the skull, and its attachments, with the overlying soft

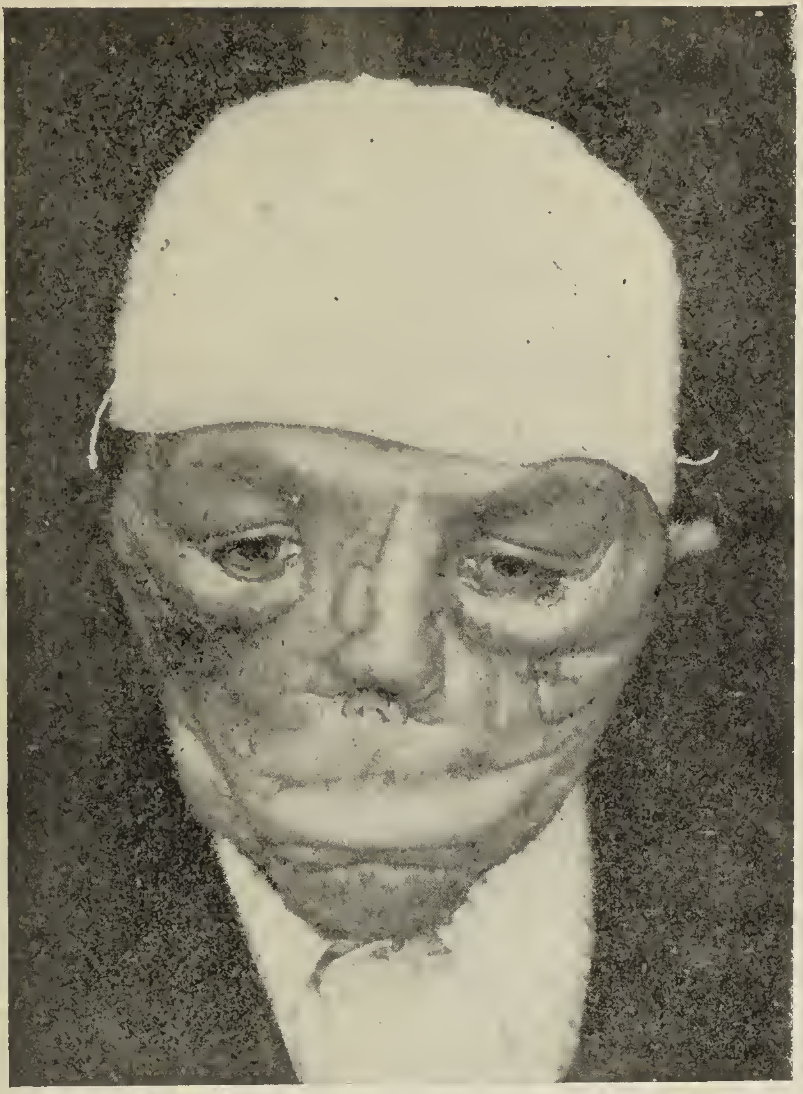

FIG. 7.—Final result.

parts, were carefully preserved. The frontal defect was reduced in size by suturing, and after the bone became covered with granulations, was paved with small skin grafts, which contributed much to the speedy healing of the remaining defect. The flap united by primary intention. The bone is permanently embedded and forms a good support for the new nose. As the anterior part of the sæptum is absent the patient has been furnished with an aluminum support, which serves also the purpose of supporting the new alæ of the nose. The prominence caused by the twisting of the flap was excised and the skin used in covering the granulating wound of the forehead. This little operation was followed by a severe infection, which caused for a time intense constitutional disturbance and extended to the loose connective tissue about the orbits and ears. It appeared to be a streptococcus lymphangeitis minus the characteristic local manifestations of genuine erysipelas. From this attack the patient recovered in a few days and left the hospital during the first week of the spring semester.

The final result of the thirteen different operations may be judged from the appearance of Figs. 6 and 7. A minute fistulous opening remains below and in front of the right ear, from which at times a few drops of saliva escape. This salivary fistula was caused by the caustic, which destroyed a part of the salivary gland on that side. The patient speaks plainly, there is no escape of saliva or food during mastication, and the skeleton face is permanently masked by the scalp flap, imparting to the face if not a handsome, at least a sightly appearance. It is evident from the clinical history, as well as from the subsequent appearance of the scar tissue, that it was not so much the disease, as the careless use of the remedy employed in its treatment, that caused the ghastly defect which made it necessary to sacrifice nearly one half of the scalp to serve as a substitute for the tissues destroyed by the reckless use of the caustic.

WHOOPING COUGH.

A NEW METHOD OF TREATMENT.*

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History.—Very little is definitely known of the origin of pertussis, although the Greeks are said by Mason Good to have known the disease. In 1578, Baillou, of Paris, described it as an epidemic cough. Although Baillou considered it well known, it was still confused with the other spasmodic and catarrhal affections. In 1791, Danz published the first monograph on the subject. Cullen also described it, and at the same time there came the reports of the first epidemics of this disease. It was noticed that the greatest mortality occured in Denmark, Norway, and Sweden. In Ireland it ranked fifth among the causes of death. An infinite number of drugs sprang up for its relief.

Ætiology.—The cause of pertussis has never been determined. It is most probably cause by a microorganism. Many organisms have been described as having been found in the sputum. Afanassiev cultivated a short bacillus which, when introduced into the trachea of animals, produced an inflammation of a catarrhal character. Further investigations along this line have been very disappointing, as it is asserted that the organisms found are not sufficiently characteristic to enable us to say that they are the sole ætiological factor in the disease. In the early history of whooping cough it was thought to be an affection of the stomach. Bean regarded the disease as a laryngitis. Broussais thought it to be a bronchitis. Friedleben and Mussy held the view that the disease was caused by pressure of a swollen lymph node on the vagus.

Baginsky was the first to point out that the cough came from irritation of the larynx and trachea. Mayer-Huni, von Herff, Appolzer, Toeschner, and

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* Read before the West End Medical Society, May 2, 1903.

Marcus all agreed that a catarrhal condition of the larynx and bronchi produced the affection; still other writers, such as Copeland and Webster, said that a pure neurosis was accountable for the condition. Linnæus, the great botanist, over two hundred years ago, was the first to hold to the "germ" theory; he thought that the disease was produced by inhalation of the larvæ of insects. Koplik has recently isolated a bacillus that resembles somewhat the bacillus of Afanassiev, which is thought by some to be the organism of pertussis. It is undoubtedly true that the disease is of microbic origin and that a specific germ will some day be discovered and a serum treatment instituted.

Lesions.—The lesions found upon autopsy are those of an inflammation of the larynx, trachea, and bronchi; a pulmonary emphysema is usually present. If a child dies during a spasm, a congestion of the brain and pelvic viscera is found.

Period of Incubation.—The insidious onset of whooping cough makes the incubation period a very elastic one. Some authors assert that only a few days elapse between exposure and the first manifestation of the catarrhal stage, while other authorities hold that the period is as long as from ten to eighteen days. If, after an exposure, sixteen days have elapsed without a cough, Holt thinks that there is very little danger of the disease having been contracted. It is probable that a certain varying resistance of the body to the infection is present in each individual, and that this is the reason of the broad limitations of the incubation period. Two children will be exposed to the disease and one be taken with it in seven days, while the other child will not be attacked with it for fourteen days. Why? They were exposed to the same source of infection! The answer is that the second child was not as "susceptible" to the microorganism; his condition possibly was better and his "resistance" was greater.

Period of Infection.—Whooping cough may be communicated from the commencement of the catarrhal stage to a period about two weeks after the spasmodic or whooping stage has ceased.

Mode of Infection.—The usual source of contagion is the patient. A very brief exposure in contact with or near the patient is sufficient to contract the disease. A third party rarely takes the disease unless exposed to a person who has come directly from the patient without change of clothing. It is very rare for pertussis to be spread by means of an infected room or clothing, as occurs in the case of measles or scarlet fever. It is undoubtedly the sputum and nasal secretion which are the disseminators of infection.

Predisposition.—Pertussis is essentially a disease of childhood, although there are authentic cases of adults contracting the disease. In adult life it is apt to run a mild course. Quoting from Szabo's statistics, at Budapest, compiled from the records of one clinic for thirty-four years, and giving the ages of the 4,591 patients treated, we have the following:

Under 1 year	1,028
1 to 2 years	1,008
2 to 3 years	659
3 to 4 years	904
4 to 7 years	803
Over 7 years	189

Young infants are very frequently attacked and the disease is one of the most to be dreaded among this class of patients. The percentage of cases occurring in babies under six months of age is small, and nurslings are less commonly attacked. Rilliet and Barthez report a case in which the cough set in on the day after birth, the mother having contracted the disease four weeks prior to her delivery. Immunity is usually insured by having had one attack; hence the rarity of pertussis during the later years of life.

The disease is most prevalent during the winter and spring months and is more frequently seen in girls than in boys. It seems to be of a more severe nature in the female sex. The susceptibility to pertussis is very great, it being second only to that of measles. It is seen to flourish in asylums, schools, etc., where a crowded state exists, and also where an unhygienic condition prevails.

Symptoms.—Most writers recognize three stages in whooping cough; each stage has its own symptoms:

1. The catarrhal stage.
2. The spasmodic stage.
3. The stage of decline.

The Catarrhal Stage.—The child seems to have an ordinary cold in the head, a coryza, accompanied by a short, dry, hacking cough. He feels well, eats well, and would sleep well were it not for his cough, which is usually worse at night. Or on the other hand the child may be slightly "out of sorts," have slight loss of appetite, and be peevish. There may be slight fever, possibly a degree or two. Some children whoop from the very beginning of the disease. If we listen to the chest during the catarrhal stage, we often find nothing there, while in other cases there are the usual signs of an ordinary bronchitis. An interesting case was seen a few months ago where a girl, aged three years, began to have a short, dry, persistent cough which was worse at night; this cough lasted for ten days in spite of treatment. There was absolutely nothing in the chest, and no elevation of temperature. Adenoids were suggested and a few were removed. The child did not once cough again after the operation, but, after an absolute cessation of this cough for two weeks, the same kind of cough returned, and the child finally developed a case of genuine whooping cough. Now, was this a case where the disease had been aborted in its catarrhal stage by the removal of the adenoids, possibly removing the infected nasopharyngeal tissue which might have contained the organism of pertussis, or was it an instance of a true adenoid cough relieved by operation, followed by exposure to and contraction of whooping cough? I think that the latter view is the correct one. We have, then, in the catarrhal stage, a dry intractable cough that nothing seems to help. This cough now gradually becomes more and more paroxysmal in character and soon enters the

Spasmodic Stage.—This stage dates from the first appearance of the whoop. The paroxysm commences with from five to twenty short explosive coughs of increasing intensity, followed by a long-drawn inspiratory effort as the air is drawn into the lungs; this produces the characteristic whoop.

The child may have four or five of these fits following each other in quick succession until the plug of mucus is expelled; when these paroxysms are over the patient is usually worn out. These attacks often end with vomiting. There may be from five to sixty such paroxysms during twenty-four hours. During these fits the child's face becomes dusky red and cyanosed; the eyes are swollen and watery, and there may occur extravasations of blood into the conjunctivæ. Nose-bleed is often seen. Moist bronchial râles are heard in the chest, and there may be at times a slight elevation of temperature. When the child feels these paroxysms approaching, he drops his toys and runs to his mother or nurse for support, or grabs any firm structure that happens to be near him. In severe paroxysms, vomiting is frequent and the sphincters may be opened. Crying brings on an attack.

In young infants the paroxysms are often followed by convulsions. The paroxysms are more apt to occur at night than in the day time, and are more frequent in a warm, stuffy room than in the open air. Oftentimes no whoop occurs, but the baby coughs until he is almost asphyxiated. The plug of laryngeal mucus is undoubtedly the irritating cause of the paroxysm. The spasmodic stage usually lasts from four to six weeks, and it is somewhat longer during the winter months. The whoop ceases and the disease enters the

Stage of Decline.—This stage consists of a simple bronchitis and lasts about one month; it may be protracted during the winter months.

The *complications* of pertussis have purposely been omitted.

Treatment.—The treatment of whooping cough may be divided into three kinds:

1. General.
2. Medicinal.
3. Mechanical.

General.—Nearly all cases of pertussis do best when kept in the open air, although I have seen three cases lately in which the paroxysm was immediately evoked when the child went out of doors. In the nursery at night good ventilation must be maintained. If it is possible, it is wise frequently to change the sleeping rooms of children suffering with whooping cough, and also to change their bedding, as reinfection may take place and a short attack become prolonged. The food should be weakened, and in older children the diet should be fluid. The bowels should be kept regular.

Medicinal.—The drugs employed in the treatment of this disease are legion, and include nearly the entire pharmacopœia. The local application of drugs by insufflation, swab, or spray to pharynx, nose, or larynx, have met with no success in my hands. I consider them both a great danger and a great nuisance. The use of inhalations is, however, of great service in allaying the paroxysms, and also useful in the stage of decline where a persistent bronchitis is present. Inhalations of pure steam or creosote vapor are best given by means of the croup kettle. These inhalations may be given twice or thrice daily, especially when the child is going to sleep for the night.

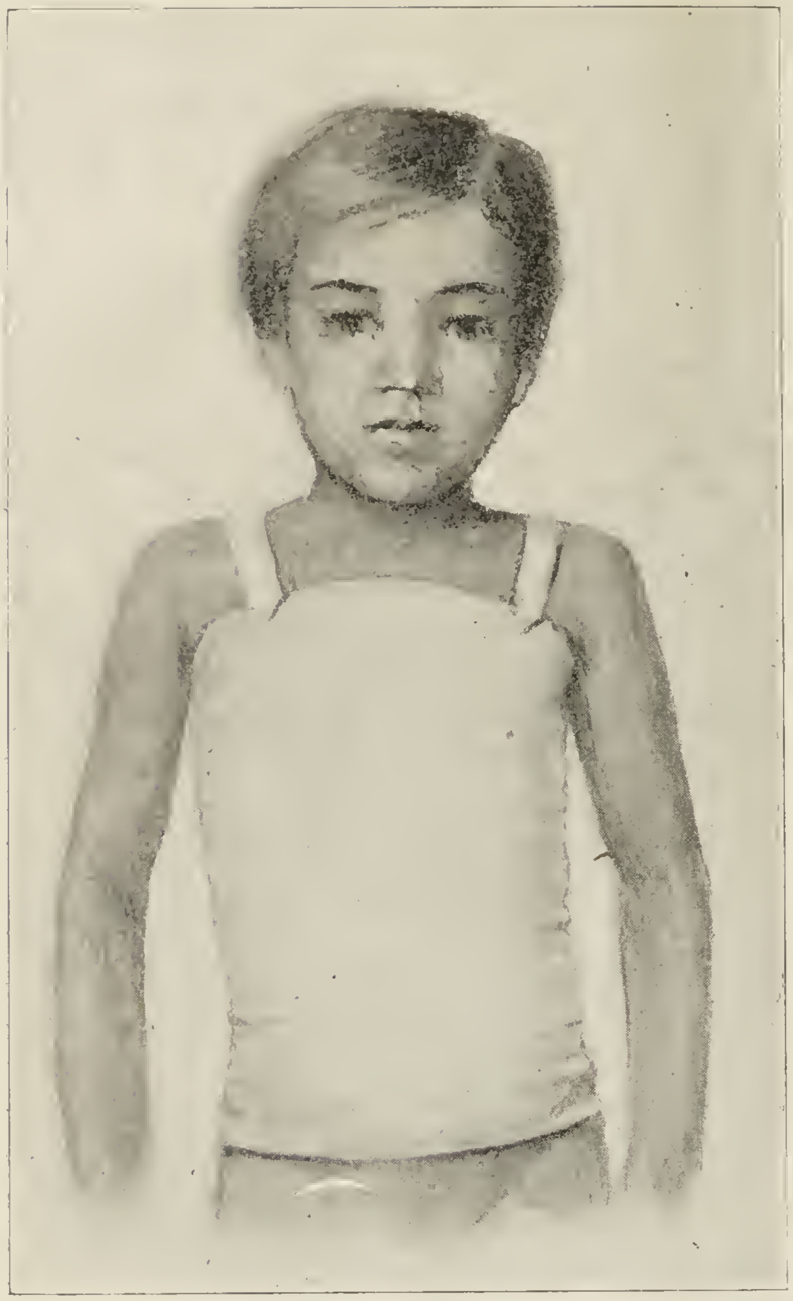
Carbonic acid gas per rectum has been tried by Norton in a series of one hundred and fifty cases, in which it is alleged that a marked improvement was noticed regarding the number and severity of the paroxysms.

In cases where there is marked spasm of the glottis, inhalations of chloroform are very useful. The drugs given by mouth which have proved to be the most efficacious in the cases I have seen, are antipyrine in combination with sodium bromide and quinine. In administering these drugs, the method employed by Dr. C. C. Kerley, has proved, in my experience, to be far ahead of any other. It is as follows, and consists in the alternate use of the antipyrine mixture and quinine. A child two years old, for example, is put on the following:

℞	Sodium bromide.............	3 grains;
	Antipyrine	1 grain;
	Syrup of ipecac.............	4 minims;
	Water to make 1 drachm.	

This constitutes one dose.

He is given this mixture every two hours for three or four days. The child is then given three



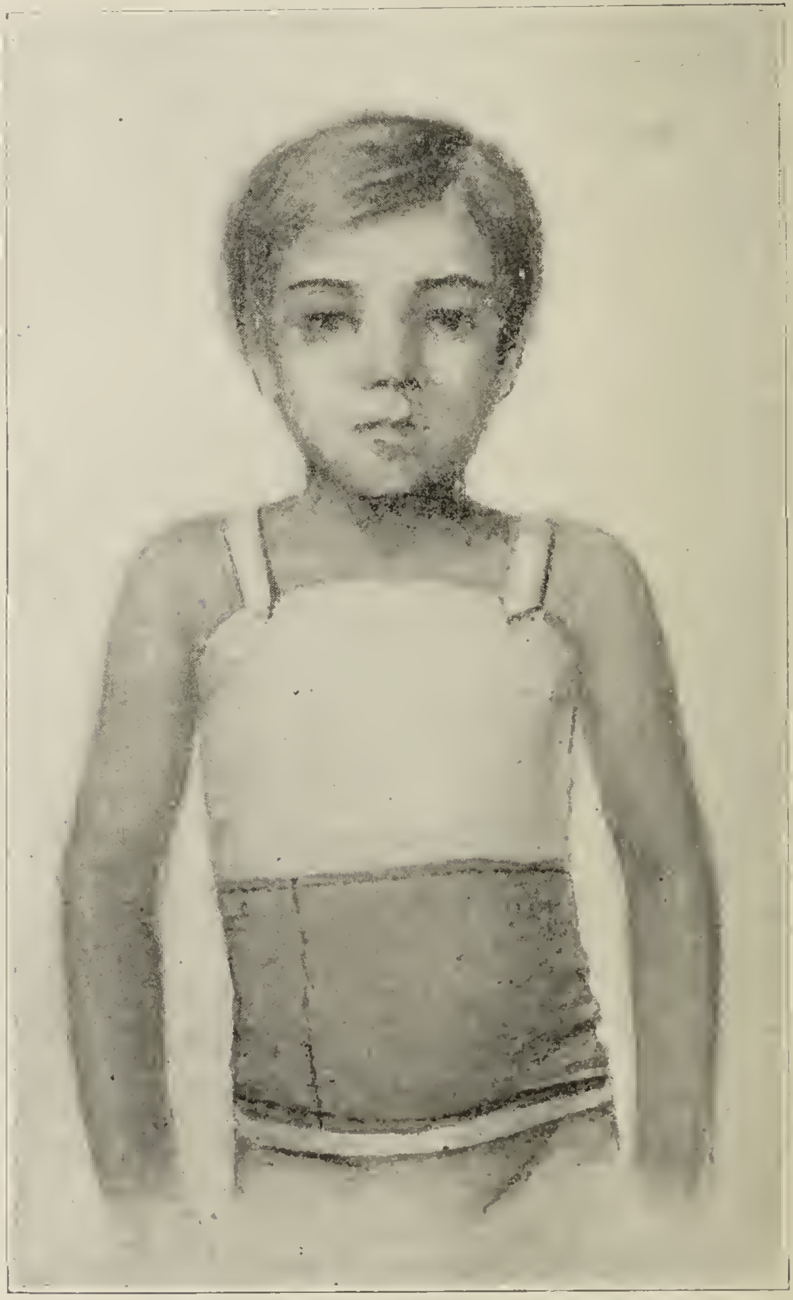
Stockinette Band.

grains of quinine sulphate every three hours for another three or four days, and is then put back on the antipyrine mixture. The only drawback to the use of quinine is that in some instances it upsets the stomach, but the alternate administration of the quinine with the antipyrine mixture seems in a great degree to obviate this disadvantage. I have discontinued the use of all other drugs in the treatment of whooping cough.

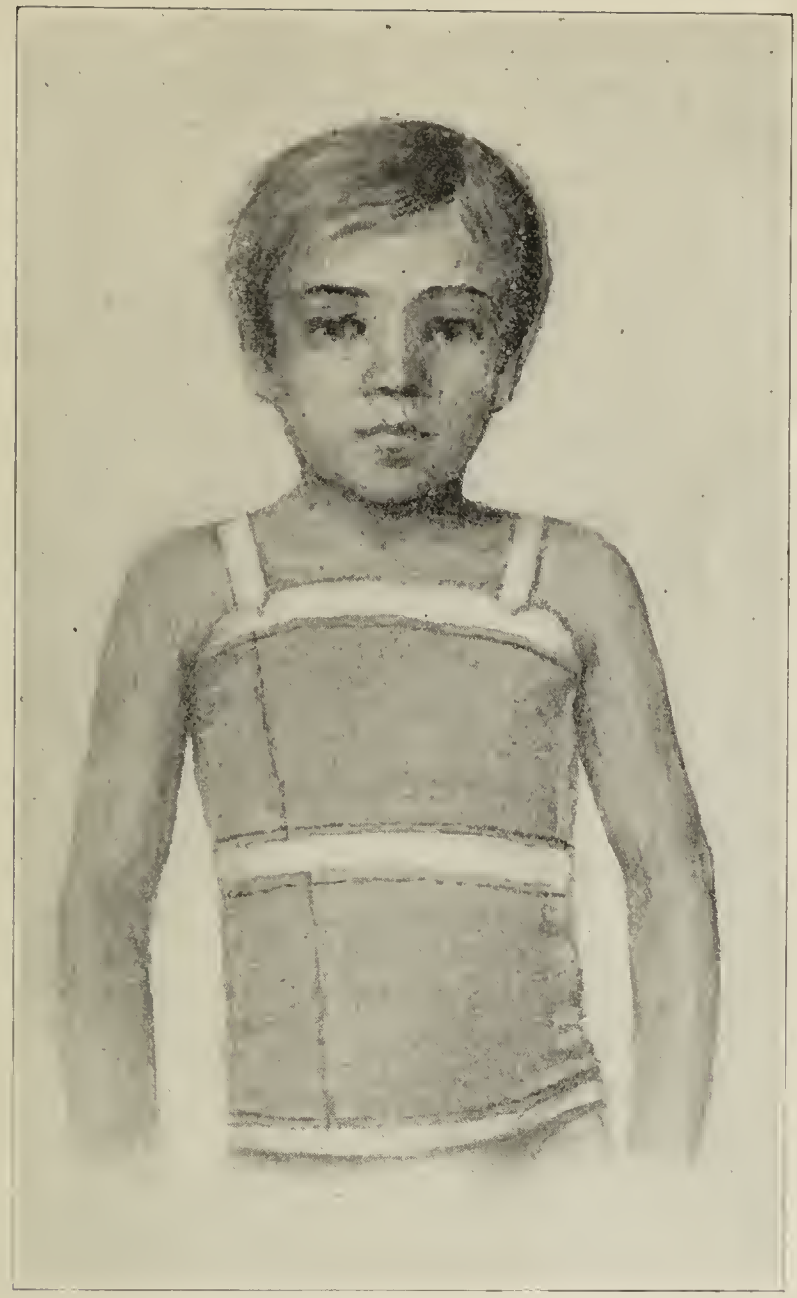
Mechanical.—For a prolonged spasm of the glottis, intubation is indicated.

We come now to the consideration of the part of the title of this paper which refers to a new method of treatment. Can we have, you ask, anything *new* regarding the treatment of whooping cough?

For the past six months I have used with marked success, the simple, yet new application of an old principle, to the description of which I ask your attention for a few concluding moments. A stockinette band is placed upon a baby with whooping cough, in the same manner as is done by orthopædists before applying the plaster of Paris jacket. This band extends from the axillæ to the pubes and fits the baby snugly. Two shoulder straps are used to prevent the band from slipping down. Upon this stockinette band a single width of elastic bandage is sewn, extending entirely around the body and covering the abdomen. This bandage is sewn on when very slightly on the stretch. This elastic abdominal belt is used to control the obstinate vomiting seen especially in nurslings, where the infant in some cases would die without its use, on account of the inanition caused by the incessant vomiting. This is a very simple measure, as the old sea-sickness belt is well known, but its application to the vomiting of whooping cough is, I think, entirely a new feature, and one which I have failed to find mentioned in my perusal of the literature of pertussis. The most aggravated cases of vomiting in nurslings have been seen to stop immediately upon the application of the elastic abdominal belt. Should the vomiting continue after the belt has been applied, tighten the belt slightly, and in most cases the vomiting will cease. This form of treatment will not, of course, stop *every* case of vomiting, but its good effects have been manifest in so many cases that its mention in connection with this grave symptom of whooping cough has seemed to me justifiable. Not only does this infant belt prove of advantage in the control of vomiting, but it is



Elastic Abdominal and Chest Bands.



Elastic Abdominal Band.

also of marked advantage when applied around the chest, in aborting the paroxysmal stage; when wearing it, the paroxysms will be noticeably of a milder nature. The only disadvantage of this method is, that in some cases it causes a slight eczema of the underlying skin, but it seems to me that its advantages so far counterbalance this slight disadvantage, as to render it really of no consequence whatever; this eczema clears up immediately when the belt is removed.

In closing, I draw the following conclusions:

(1) Whooping cough is a self-limited disease and runs its course in the same way as does a pneumonia.

(2) The medicinal treatment which has proved the most efficacious in my hands, is that devised by Dr. Kerley, namely, the alternate use of antipyrine with bromide and quinine.

(3) The application of an elastic belt to the abdomen or thorax (or both), as occasion requires, combined with the above mentioned medicinal treatment, has proved itself to be, in the experience of the writer, the best and most effective method in the treatment of whooping cough.

165 West Eighty-fifth Street.

THE USE OF THE X RAY IN THE EXACT LOCALIZATION OF A FOREIGN BODY.

By L. D. WEISS, M. D.,

NEW YORK.

The patient was a young woman who, one year ago, while sewing on a machine, ran the needle into her finger and broke off the point therein. She said that it pained her whenever she made particular use of the finger, as in piano playing, etc.

I took two radiographs of her hand. In the first, the end of the needle is seen embedded in the terminal phalanx, seemingly right on top of the bone structure; a portion of the eye of the needle can be distinctly seen, for the needle broke off right at its eye.

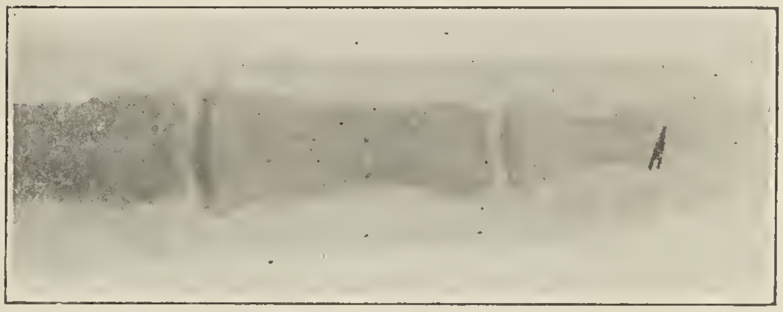


Fig. 1.—Anteroposterior view of foreign body.

In the first radiograph the location of the foreign body is somewhat misleading, as the needle seems to lie right on the bone, when as a matter of fact it is situated quite a distance from the surface of the bone, as can be seen from the second radiograph (which was taken with the finger held at right angles to the first radiograph), wherein the foreign body shows up as a small dot in the meshes of the fascia, superficial to the flexor tendons.

Fig. 2.—Lateral view of foreign body.

The first radiograph plainly showed the location of the needle point, while the second showed how deep the incision had to be to cut down upon it. Having in this way exactly determined the location of the object it was easily removed.

157 West One Hundred and Eleventh Street.

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Eastern District Hospital.—Dr. Claude Graham Hoffman, who for a long time has been house surgeon of the Eastern District Hospital, was given a farewell dinner by his friends on June 2nd, prior to his departure for Louisville, Ky., where he will practise medicine.

TREATMENT OF THE COMMON CLINICAL FORMS OF GONORRHŒA IN THE FEMALE.*

By R. OLIVER KEVIN, M. D.,
PHILADELPHIA,
OUT-PATIENT DEPARTMENT OF THE JEFFERSON HOSPITAL.

Gonorrhœa in the female is, as a rule, a malady to which not much attention is given by the general practitioner, or investigation by either the gynæcologist or obstetrician; one reason for this may be that women are prone to conceal or deny their sexual life, and should the disease be chronic the patient may be ignorant of its presence. A genitourinary gynæcologist would seem to me the type of a practitioner required in such cases, and for this work there is a wide field of usefulness for those having the training and inclination, for as matters stand there is unfortunately a large element of truth in the statement of a well-known Philadelphia surgeon, that the proof of gonorrhœa in the female is for some male whose urethra is virgin to clap, have intercourse with her; although even then, I might add, the male might escape and she still have gonorrhœa.

One hears much of the evil results of syphilis, but it is now recognized by competent observers that gonorrhœa in the female is more serious than syphilis; syphilis, as far as my observation goes, is milder in the female than in the male.

When I look back at the cases I have had of gonorrhœa in the female, I recall many complicated with ovarian disease and pus tubes, in which I have had the pus tubes removed and have found the gonococci in both the tubes and ovaries. In many cases of cystitis, labial abscesses, and abscesses of the glands of Bartholin, I have also discovered this organism. These latter abscesses are usually poulticed by the patient or her doctor until rupture occurs, or if incised, the opening is usually made so small there is imperfect drainage; as a result it is often followed by a chronic infecting sinus, difficult to detect, but effective in propagating gonorrhœa for an indefinite period. It is principally in this class of cases, nearly always chronic, that the patient thinks nothing is the matter with her, and the urethra will show nothing, and doctors will examine her and declare her free from disease, while some of her lovers will become infected and some will not, depending entirely upon whether or not the male organ escapes the drop of pus, sometimes more, sometimes less, sometimes none, at the sinus opening.

Dr. Joseph Price has well said that were the male sexual organs partly abdominal, as the female are, there would be less gonorrhœa.

The gonococcus has a special predilection for the urethra, and for practical purposes almost every case of purulent urethritis in the female is gonorrhœal in character. To detect this, have your patient hold her urine some time before her visit to your office, then strip her urethra, which will usually show a discharge if she is diseased; but first cleanse the urethral meatus of any vaginal or uterine discharge that may be present.

In gonorrhœa of the female, as in the male, the urethra is primarily affected, second the cervix, third the vagina, fourth the vulva, fifth the rectum, and sixth the inguinal glands. Specialists differ in the classification, however, nor is it important. It is a cause for regret that the onset of gonorrhœa in the female is so insidious, and the symptoms are usually so mild, that she rarely presents herself to a physician until some of her male friends have told her that she has infected them, as she may honestly believe herself to be suffering from a cold in the bladder; but in a few days she is likely to find a burning sensation on urination, that something is wrong, and that it is not leucorrhœa. When a patient presents herself in the acute stages, put her to bed, if possible. The treatment of uterine gonorrhœa in the acute stages should be purely symptomatic; all local measures, if the patient is in a febrile condition, should be avoided, owing to the risk that, through the accompanying disturbance of the uterus, the spread of the gonococcus to the tubes and the peritonæum may be increased. No antipyretics should be used; treat the inflammatory phenomena on general principles. During the acute stage you may give your patient a powder composed of salol, potassium bicarbonate, and sodium bromide, in suitable doses; this powder will lessen the ardor urinæ, as it is alkaline as well as being a urinary antiseptic; give the powder every two hours, in large draughts of water.

When the very acute condition has subsided, inject the urethra (with a glass syringe) with about half an ounce of 5 to 10 per cent. argyrol, the patient having first urinated; the patient can give herself a urethral injection by the aid of a hand mirror. Since employing this method I have observed no bladder involvement; should the bladder become infected (in fact, a posterior urethritis) instillations of silver nitrate 2 to 5 grains to the ounce, or of copper sulphate may be used; or the bladder may be flushed with potassium permanganate, 1 to 2000 solution, or silver nitrate in similar strength. Should the infection, despite this treatment, persist, give internally urotropin, sandalwood, or copaiba, with endoscopic applications through a Koch tube (or Kelly's does very well) preferably of silver nitrate, to the neck of the bladder. Dilatation of the urethra is effective here, also local applications to the urethra of a preparation of iodoform, ʒiv, Peru balsam and compound tincture of benzoin, ℥i, on a cotton-wrapped applicator; silver nitrate, 2 to 10 grains to the ounce, may also be used, if preferred, along the urethra. Should the purulent drop from the meatus become chronic, one must search for the cause, which will usually be found in the urethral follicles, or Skene's glands. Disease of the urethral follicles, urethritis of Guérin, is best treated by dilatation, ordinary straight rounds lubricated with Finger's iodine ointment or argyrol, 20 per cent in lanolin. If Skene's glands are infected you can feel the enlarged glands roll under your finger along the side of the anterior urethra (Kelly's paper on this subject before this society leaves little for me to say). A small nasal or urethral speculum or bent hair pin will expose the orifice of the gland; in this condition I prefer to inject the gland with either silver nitrate, 20 grains to the ounce, or carbolic acid, employing a blunt point hypodermic needle. Vaseline will protect the adjacent tissue. Disease of Skene's glands is a troublesome complication that will often tax one's ingenuity to effect a cure. The two-glass test may be employed in the female malady as in the male, although not so satisfactorily as in the male, to determine the character of the urine as well as the presence or absence of "Tripperfaden." Gonorrhœa of the cervix is almost always present with a urethral infection. To make a positive diagnosis, microscopical examination of the cervical secretion is necessary. Preliminary to treatment, clean off the cervical secretion and inject a few drops of 20 per cent. argyrol or 2 to 3 per cent. protargol with a long glass pipette or a syringe with a long nozzle carefully inserted into the os, being careful previously to expel the air, or you may have the disagreeable experience, alarming to your patient and annoying to yourself, of uterine colic. It is well, if possible, to have daily or alternate daily treatment, until the microscope shows no more pus or gonococci. Small wool tampons saturated with 20 per cent. argyrol may be left against the cervix, in order to avail one's self of the continuous gonococcicidal properties of the drug, as it causes no irritation. If the uterus will permit of it, a small strip of gauze saturated with the argyrol may be inserted gently to assist drainage. For irrigating, the following remedies are useful: Carbolic acid, ʒii; zinci sulphocarbolate, ℥ss; glycerin, ℥iii. A teaspoonful of this mixture to a quart of hot water; lysol, creolin, normal salt solution, or potassium permanganate, 1-2000, or argyrol, 1-500, protargol, 1-500. Lydston, of Chicago, believes in frequent douchings of the uterus with potassium permanganate, and it is very good as a cleansing agent, but as a curative measure, in either male or female, it will be found disappointing. However, any cleansing antiseptic agent will do if not too irritative.

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* Read before the Philadelphia Obstetrical Society, April 2, 1903.

Nitrate of silver, sulphate of copper, 10 to 30 grains to the ounce, applied to the cervical canal, 25 per cent. of argyrol or 5 per cent. of protargol or iodine and carbolic acid, are effective agents. Some time after the acute stage of a clap in the female, I paint the entire vaginal and mucous membrane of the cervix with nitrate of silver, 10 to 15 grains to the ounce; also in this stage, to get rid of the catarrhal process, no remedy is more efficacious than a mixture of argyrol 25 per cent., ichthyol 25 per cent, glycerin 50 per cent.; a tampon saturated with this solution may be inserted and allowed to remain from six to twelve hours, its removal to be followed by a copious hot douche while the patient is in the recumbent posture. Icthargan is also beneficial in this stage, as are also tannin and iodoform. If your various forms of medication have failed, curetting must be resorted to. It is unfortunate that curetting is so often followed by a profuse, persistent leucorrhœa. In the main I am not much in favor of curetting, as it may light up pelvic peritonitis. With the above described methods carefully carried out, the virulence of the infection usually subsides. I repeat, it is meddlesome surgery to treat the uterus locally during the febrile stage, because of the danger of aggravating the condition and thus favoring its communication to the tubes and ovaries. My experience shows that it is better to place the patient in bed with absolute rest until subsidence of the very acute symptoms and constitutional disturbances. It is not my intention to go into a systematic discussion of the treatment of female gonorrhœa in all its phases, but merely to deal with the most common forms of the disease as seen in daily practice and present some of these methods of treatment experience has proved of value.

Nor can I close my paper without emphasizing the fact (too often overlooked by gynæcologists and physicians) that one of the most important points to which the surgeon's attention should be directed is the condition of Bartholin's glands, because so often it is the infection of these structures that is responsible for the propagation of gonorrhœa to the male, and it will be found on close observation, that these glands present minute sinuses, which form niduses wherein the gonococci are harbored indefinitely, and which from time to time discharge pus which often spreads to the adjacent portions of the female generative organs and thus sets up a recurrence of gonorrhœa; this accounts for many cases of apparently fresh infections.

Treatment of this condition must be thorough and radical: after disinfecting the surface the sinus should be freely incised, the diseased glands curetted, and the entire surface involved freely swabbed with 50 per cent. solution of argyrol twice daily, carbolic acid, or strong nitrate of silver solution, 60 grains to the ounce. Should the argyrol treatment be employed, it should be used for three or four days successively, and then alternately, until the condition is eradicated.

1315 South Fifteenth Street.

PERTUSSIS WITH UNUSUAL CEREBRAL SYMPTOMS.

By EDWIN E. GRAHAM, M. D.,
PHILADELPHIA.

The following case was seen in consultation with Dr. Gordon on March 19th: The child's name was Sarah G., aged nineteen months. She had always been healthy until the development of pertussis two months before. The paroxysms had been very severe, but not frequent. Three weeks before, the child became dull, heavy, and apathetic, but took nourishment well and did not cry. This stupor gradually became more marked. During this period the pulse averaged 65 to 75, the highest pulse rate being 80; the temperature was usually normal or subnormal. The child vomited occasionally, but took liquid nourishment fairly well from a spoon. For the five days preceding my visit, the stupor had gradually became more marked. The patient gave constantly little moans and occasionally moved the arms and legs slightly. Cheyne-Stokes respirations had been present since the increase in the stupor. The temperature was 101.6° F.; respirations, 28; pulse, 150. The child felt the prick of a needle. Sensation was evidently better preserved on the left than on the right side, the prick of a needle on the right foot often causing the left foot to move distinctly, while the right foot moved very little. Sensation for heat and cold was well preserved.

The attacks of pertussis were now infrequent and very light, amounting simply to a few coughs. The pupils were dilated and responded sluggishly to light. The greatest circumference of the head was 18¾ inches. She moved both arms and legs, the motion, however, on the left side being better than on the right. Both eyes were occasionally opened sluggishly; there was no facial palsy and no spastic condition.

The child's family history and previous personal history were good. When eight days old it had one convulsion, probably from improper feeding. It walked at the age of fifteen months, and before the attack of pertussis it spoke a few words and understood language perfectly.

The child was admitted to the Jefferson Hospital the next day, March 20. During the following five days until its death, on March 25th, the temperature varied. On March 23rd it rose abruptly to 106°, but was reduced promptly by a sponge bath. Later, on the 23rd, it again reached 103°; on the 24th, it touched 103.8°, and again 103°. The sponge bath was given on all occasions when the temperature reached 102.6°, and was invariably followed by a prompt reduction of the fever. The respirations continued of the Cheyne-Stokes type, varying from 30 to 80 in a minute. The pulse ranged from 130 to 180. After admission to the hospital, a progressively increasing spastic condition was noticed, involving both the arms and legs. The stupor gradually became more marked, and the child was kept alive by means of feeding with a tube, four ounces of peptonized milk being introduced into the stomach every fourth hour.

Physical Examination on Admission to the Hospital.—The heart's sounds were normal, although somewhat weak. Scattered over both lungs, both anteriorly and posteriorly, were heard numerous small, moist râles. The child was distinctly emaciated. The eye examination, made by Dr. Sweet, showed the media clear, marked astigmatism, optic discs clearly outlined, and no evidence of pressure to be found.

The urine was clear, amber-colored, specific gravity 10.18, acid, no albumin, no sugar. Microscopical examination showed crystals, triple phosphate, amorphous urates, a few squamous epithelial cells, many leucocytes, no red cells, no casts.

A lumbar puncture was made on March 22nd, the report of which follows:

REPORT.

Specimen.—Fluid from spinal canal. Material for examination consists of 10 cubic centimetres of turbid, slightly blood-tinged fluid, containing a few small coagula of reddish color. The fluid was alkaline in reaction and highly albuminous (⅓ moist layer). After centrifugalization the sediment consisted of erythrocytes and leucocytes. A differential count of the white cells (in stained preparations) showed lymphocytes 91 per cent., and polymorphonuclear leucocytes 9 per cent.

Spreads stained for bacteria yielded negative findings.

Inoculations made upon various media remained sterile.

A rabbit and guinea pig were inoculated, but up to the present time they have developed no symptoms. Should symptoms develop a subsequent report will be submitted.

[Signed] Randle C. Rosenberger,
Demonstrator of Bacteriology.
Approved: W. M. L. Coplin.

Theodor, in six hundred and thirty-eight cases of pertussis, saw hemiplegia in a child of eight years; the child improved rapidly and was able to walk in fourteen days. In a second case, that of a boy of five and a half years, complete paralysis of left arm and leg developed; the boy recovered completely in ten days.

Leroux, in a study of thirty-eight cases of paralysis in pertussis, found the greatest number of cases in young children between the ages of one and five years. A number of the cases were complicated with bronchopneumonia, influenza, scarlet fever, and tuberculosis. Cerebral paralysis, as a rule, came on suddenly; more rarely, hemiplegia or monoplegia came on slowly.

Lectures and Addresses.

POSTPUERPERAL SEPSIS.*

By JOHN B. DEAVER, M. D.,
PHILADELPHIA, PA.
SURGEON IN CHIEF, GERMAN HOSPITAL.

Mr. President and Gentlemen: When asked by the committee of your society for an address, I felt that no better subject could be selected than one bearing upon postpuerperal sepsis, not only from the practical importance of the disease itself, but because of its associations with a distinguished surgeon, a most courteous gentleman, and a resident of your city, the late Dr. John Light Atlee.

Infection of the uterus occurs too frequently, even in this day of asepsis and antisepsis, this era of surgical cleanliness, and calls for the strongest condemnation of those medical men and nurses by whose neglect of the cardinal surgical principle of cleanliness the disease is fostered.

Though abortionists, irresponsible doctors, and midwives are usually responsible for such a condition, it is also true that it may occur from certain pathological lesions entirely beyond the control of a careful physician; which may exist at the time of pregnancy and precipitate sepsis. An old infection of the tubes may rupture during the mechanical action of the uterus in emptying itself, or, by the reduction in vitality of the surrounding tissue from compression, the bacteria of such a pyosalpinx may be excited to a new virulence.

A dermoid cyst may rupture, an ovarian cyst become twisted on its pedicle, or a subperitoneal fibroid nodule may be softened and the low vitality of such tissues induce their infection by bacteria that in a state of health would not affect normal cells.

The woman may also have had a previous endometritis, more or less chronic in nature, the bacteria of which lie dormant in the interstices of the uterine mucous membrane giving rise to a virulent sepsis after delivery. But the greatest cause of septic states of the puerperium is the introduction of pathogenic microorganisms into the vagina by the examining finger of the attending physician, or by the giving of an antepartum douche.

In the normal woman the vagina contains no pathogenic bacteria, and its secretions are strongly germicidal to such an infection. This power is due to the marked acid reaction, to the presence of the vaginal bacilli of Döderlein, and to the phagocytic action of the leucocytosis excited by chemotaxis.

That the invasion of the vagina by pathogenic microorganisms can be caused by unclean examinations was proved by Semmelweiss, in 1847, who reduced the mortality from puerperal sepsis in the Vienna General Hospital from 11.4 to 1.27 per cent. by simply requiring students to wash their hands in chlorine water. Krönig showed that a lysol douche did not destroy infecting microorganisms, but actually increased the time in which the vaginal secretions would destroy such bacteria.

The different manner in which the destructive consequences of this most unfortunate condition demonstrate themselves are too well known to every active abdominal surgeon.

From the anatomicopathological standpoint there are three forms viz: Endometritis, metritis, and perimetritis, all depending upon infection.

Endometritis arising during the puerperal state is usually the result of a piece of membrane or placenta remaining in the uterus and becoming attacked by microorganisms. Decomposition followed by inflammation of the endometrium results, and this virulence of the infecting bacterium determines the severity of the lesion.

In putrid endometritis a retained portion of the decidua, afterbirth, or blood clots has undergone putrefactive changes and the uterine cavity is filled with a pulpy, reddish brown, fœtid mass. The removal of this mass by curetting reveals a sharp line of demarcation between it and the healthy myometrium.

Septic endometritis, on the other hand, is caused as a rule by streptococcus infection, and the endometrium is usually covered by a dry, dirty-yellow membrane with areas of necrosis.

As a result of endometritis the Falloppian tubes may become infected, and in turn the ovaries, resulting in a salpingitis, salpino-oophoritis, pyosalpinx or a tuboovarian abscess, the latter being one of the fortunate terminations of puerperal infection which has traveled beyond the uterus. Where the infection travels to the fimbriated extremity of the Falloppian tubes and is not confined there by the closure of the abdominal os by adhesions, the pelvic peritonæum becomes involved, the starting point of what may be general peritonitis. This statement teaches that, in the class of cases coming under the care of the surgeon early with all the evidences of local infection and the presence of tenderness of the cul de sac, as elicited by vaginal touch, it is best to open the cul de sac freely by an incision through the posterior vaginal vault, packing the cul de sac with iodoform gauze. This can be done in connection with cleansing the uterus, if the latter is indicated, without risk of increasing the pelvic peritoneal infection, by carrying out the former procedure with every possible aseptic and antiseptic precaution.

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* Read before the Lancaster County Medical Society, March, 1903.

Where the infection is not highly virulent and the patient's resistance excellent, the peritonitis may confine itself to the pelvic peritonæum. It is in the latter class of cases, where the pelvic cellular tissue becomes involved secondarily, that perimetritis occurs. The latter condition was formerly designated pelvic cellulitis; in fact the two conditions are synonymous, except that the former results from infection of the genitalia, while the latter can occur in disease of the bone or bowel.

The pelvic cellular tissue is extraperitoneal and forms a sort of bed or matrix in which the pelvic organs are imbedded, as well as the surrounding blood vessels, nerves, and muscles that form the pelvic floor. There is very little cellular tissue behind and in front of the uterus, as the rectum and bladder are in close proximity, and none at the upper portion of the uterus, owing to the close attachment of the peritonæum. On either side of the uterus, in the broad ligaments, there is considerable connective tissue. It is interesting to note that during pregnancy there is a greater amount of cellular tissue than ordinarily in and near the broad ligaments and especially behind Poupart's ligament. As the result of this difference in the anatomical arrangement of the connective tissue in the pregnant and nonpregnant state, it is not uncommon, in perimetritis occurring after delivery at full term, to find swelling in the groin above Poupart's ligament, while, in the nonpregnant state, it is very rare to meet with swelling in this locality as the result of cellular tissue inflammation. As the uterus ascends during pregnancy the peritonæum at the sides is lifted up, which brings the base of the broad ligament practically on a line with the brim of the pelvis; this also makes a triangular area at the side of the uterus destitute of peritonæum, and in this wise the excessive amount of cellular tissue behind Poupart's ligament is accounted for.

The perimetric form is frequently mistaken for and styled "pelvic cellulitis"—a misnomer. This form of the disease, as already stated, is the result of infection of the serous covering of the uterus and neighboring peritonæum, infection which has traveled through the Falloppian tubes. If the infection is confined to the Falloppian tubes, one or both, there may result a tuboovarian abscess, usually a favorable condition for operation. It will be seen, therefore, that if the pelvic cellular tissue becomes involved, it is only secondary to a pelvic peritonitis. If abscess formation occurs as a result of the latter, while from the location of the collection it is necessarily a pelvic abscess, it does not mean that it is the result of pelvic cellulitis alone, but of a pelvic peritonitis as well; the latter being the primary lesion of the floor of the pelvis. These abscesses become extraperitoneal through Nature's effort to protect the general peritoneal cavity. They can be opened extraperitoneally by an incision through the vault of the vagina or above the outer half of Poupart's ligament, depending upon the site of the most prominent part of swelling. Where the inflammation is not confined, but excites a pelvic peritonitis that is not disposed to become limited by generalizing itself, the case is serious.

I do not believe that pelvic cellulitis as a primary condition occurs, except by infection introduced by way of a wound through the peritonæum, tears in the vagina or cervix which take place during childbirth, or by extension of pus from the upper to the lower retroperitoneal space. I question the wisdom of the practice advocated by some surgeons of repairing a recently torn peritonæum or cervix by doing the ideal operation. The tear having occurred, cleanliness and drainage are to my mind the surest road to recovery. I would particularly advise those of you who are not doing surgery daily to follow the latter practice. The expert operator is at times justified in doing that which he could not conscientiously advise the occasional operator to do.

The uterine wall may be directly attacked, as a result of septic endometritis, with ulceration, necrosis, or localized collections of pus within the uterine muscle.

The uterus is frequently boggy, œdematous, and friable throughout, or else the inner layers of the muscle may alone be involved, with sloughing off of masses of tissue (dissecting metritis).

In most cases of metritis a septic lymphangeitis and thrombophlebitis is present, frequently followed by pyæmia.

The symptoms of the various forms of puerperal sepsis depend upon the virulence of the infection, the nature of the tissues attacked, and the resistance of the organism to absorption of septic products. The most common type is a simple sapræmia from the absorption of the toxines produced by the putrefaction of shreds of decidua, blood clots, etc. Upon the second or third day after labor the temperature rises and the lochia may have a foul odor; the appetite is impaired and there may be slight nausea and chilly sensations. The pulse is usually a little faster than normal. In these cases early recognition will confine the operative treatment to the vagina and uterus and simply necessitate thorough cleansing of both cavities and the establishment of drainage with iodoform gauze. All symptoms will usually disappear thirty-six hours after operation.

Septic endometritis, from infection by streptococci and occasionally staphylococci or pyogenic bacilli, may assume serious proportions and give rise to a general and fatal sepsis.

Such infections have their starting point in a torn or abraded surface in or near the vaginal outlet, with an extension of infection upward or else primarily in the uterus itself.

The symptoms at first are purely local and at this time most amenable to treatment. If allowed to pass this stage in its development we may meet with any or all of the complications and extremely dangerous conditions of a full fledged puerperal sepsis. The lochia becomes foul, the mucous membrane of the genital tract reddened, the temperature elevated, and the pulse increased, with perhaps some chilliness. It is at this time that prompt, vigorous disinfection of the genital tract is indicated, with active stimulation. It is always better to err on the safe side and disinfect the parturient tract of every patient who has a rise of temperature with disturbance of the lochia, than to allow one woman to progress to general infection.

To defer curetting, cleansing, etc., until the patient is constitutionally infected with perhaps a septic peritonitis is virtually locking the stable after the horse is stolen. Early recognition of the danger and the immediate institution of proper treatment is the *sine qua non* to a successful issue in the majority of cases. Conservative treatment is the early institution of radical measures, which results in saving life; not the waiting until the "eleventh hour" in hope that Nature, by establishing a leucocytosis or what not, will by chance accomplish a cure.

The best possible curette is the finger, but the use of the dull currette is warrantable. I would advise against the use of the sharp curette, and with either instrument, dull or sharp, always against too much curetting; it is simply necessary to empty the uterus of decomposing matter. Too much activity with the curette exposes the patient to infection from the breaking down of Nature's barriers, in the shape of inflammatory exudate, and in this way opening up avenues of infection, thus doing more harm than good with the instruments. In those cases where there is decomposed material in the uterus and already commencing pelvic peritonitis, it is advisable not only to empty the uterus, but to open the cul de sac by an incision through the posterior wall of the vagina and introduce drainage. I am sure that cases which would otherwise end in general pelvic peritonitis can often be aborted by this method of treatment. In fact, if this operation is done under strictly antiseptic conditions, little if any harm can accrue, granting that nothing abnormal is found. What usually takes place upon incision of the posterior vaginal vault is the escape of a serosanguineous, serofibrinous, or purulent fluid, depending upon the degree of peritonitis.

The preparation of the field of operation is as essential here as elsewhere. The vulva and pubic region are to be shaved, and the vagina thoroughly cleansed. During the operation the external parts are bathed constantly by the bichloride and carbolic solution, which is allowed to flow from an irrigator. An antiseptic pad is adjusted upon completion of the operation. After each urination the parts are to be washed with bichloride, etc. I think it safer to allow the patient to pass her urine than to use the catheter: First, because I believe it bad practice to suspend the function of the bladder; and secondly, the use of the catheter is too often followed by cystitis, a condition I have seen quite as troublesome to correct as the one for which the operation was done. If a catheter is used it should be a glass or a metal instrument, for these are the only instruments that can be sterilized. It is fitting to say a word here relative to lysol as an antiseptic wash. Personally, I regard it as of little use compared with bichloride and carbolic acid. In short, to use lysol I consider much like sending a boy on a man's errand.

If treatment is delayed, the temperature rises to 103° or 104°, the pulse becomes weak and rapid, the tongue coated and the breath foul; thirst, nausea, anorexia and a gradually progressing weakness and circulatory embarrassment presage the development of a general sepsis.

Locally, the mucous surface becomes ulcerated or covered with a false membrane, and involution of the uterus is arrested. But such is the progressive nature of these infections that an endometritis, *per se,* is rare, and a salpingitis, metritis, or pelvic peritonitis are coincident.

This brings up the question of abdominal section for puerperal sepsis, a most difficult problem, involving as it does the assumption that the attending physician has an exact knowledge of the lesion present. For instance, the disease manifests itself in some cases as a phlebitis of the uterine sinuses and of the veins of the broad ligament. The constitutional symptoms are pronounced; rapid pulse, high temperature, irritable stomach, with, in some cases, a disposition to diarrhœa; associated with this condition of the vessels there is endometritis, giving rise to an offensive purulent discharge, often blood stained. Local examination shows a hot vagina, an enlarged, painful and movable uterus, which offers more or less resistance to touch, suggestive of infiltration; fulness and increased resistance in either vaginal vault indicative of a like condition of the broad ligaments; and the absence of fulness in either the retrouterine or vesicouterine pouch. In this condition operation promises nothing; on the contrary, it may do much harm by breaking down septic thrombi, often favoring foci of inflammation, to say nothing about the risk of cerebral or ptomaine emboli. Curetting is especially harmful.

The treatment which promises most under these circumstances is supporting; stimulants, large doses of tincture of iron, thirty drops every three hours, quinine, ten grains in twenty-four hours, plenty of milk and concentrated nourishment; locally, vaginal and intrauterine douching with bichloride and carbolic solution, antiseptic pads, etc., and ice bags constantly applied to the lower quadrant of the abdomen. The bowels are to be opened two or three times daily with salines. Convalescence is usually prolonged.

In a percentage of these cases convalescence is interrupted by the development of foci of suppuration which, in my experience, has usually occurred in the broad ligaments, one more often than both being affected. This manifests itself as a unilateral swelling, which can be detected by vaginal, rectal, and abdominal examination, and to the sense of touch presents a boggy feeling, a sense of resiliency or perhaps fluctuation. The general condition of the patient usually bespeaks the presence of pus. We find a hectic temperature and moist skin; the tongue is usually red, but not always so; chilly sensations are complained of or a decided chill may occur. At this stage of the disease operation is indicated, and the selection of the best avenue to evacuate the collection will depend on the point at which it is most accessible; this may be through the vagina or immediately above Poupart's ligament. It is my experience that in these cases recovery usually occurs. I have seen spontaneous evacuation above Poupart's ligament, followed by recovery, take place in a number of cases.

Another class of cases met with after labor at full term have as their most prominent feature a large purulent collection in one or other side of the pelvis, a condition frequently described as cellulitis and abscess. To this term the writer takes exception, for he is convinced that these cases originate from sepsis carried through the Falloppian tubes into the pelvis, where the inflammatory exudate breaks down and forms an abscess circumscribed by an adventitious membrane so closely resembling peritonæum that operators pronounce it such, and record the case as one of abscess of the broad ligament. I have studied these cases very carefully and from an anatomical standpoint I have never been able to make them out other than cases of circumscribed peritonitis, and not suppurating cellulitis. Cases of this class frequently occasion a bulging of the rectouterine cul de sac so far as to make it feasible to evacuate it through an incision in the vault of the vagina. That they can be so evacuated does not disprove their true nature.

In septic metritis, which always means involvement of the annexa and probably of the peritonæum, radical surgery is unfortunately called for. Total hysterectomy, with the removal of the entire area of infection, tubes, ovaries, broad ligaments and uterus, should be performed. It is better, I think, in most cases at least, to perform this operation by the vaginal route, packing the entire true pelvis with iodoform gauze.

In closing, I cannot do better than quote from a paper written by Dr. Oliver Wendell Holmes, in 1843. Dr. Holmes says: "I have no wish to express any harsh feeling with regard to the painful subject that has come before us. If there are any so far excited by the story of these dreadful events, that they ask for some word of indignant remonstrance, to show that science does not turn the hearts of its followers into ice or stone, let me remind them that such words have been uttered by those who speak with an authority I cannot claim. It is as a lesson rather than as a reproach that I call up the memory of these irreparable errors and wrongs. No heart can tell the heart-breaking calamity they have caused; they have closed the eyes just opened upon a new world of love and happiness; they have bowed the strength of manhood into the dust; they have cast the helplessness of infancy into the stranger's arms, or bequeathed it with less cruelty the death of its dying parent. There is no tone deep enough for regret, and no voice loud enough for warning. The woman about to become a mother, or with her new-born infant upon her bosom, should be the object of trembling care and sympathy wherever she bears her tender burden or stretches her aching limbs. The very outcast of the streets has pity upon her sister in degradation when the seal of promised maternity is impressed upon her. The remorseless vengeance of the law, brought down upon its victim by a machinery as sure as destiny, is arrested in its fall at a word which reveals her transient claim for mercy. The solemn prayer of the liturgy singles out her sorrows from the multiplied trials of life, to plead for her in the hour of peril. God forbid that any member of the profession to which she trusts her life, doubly precious at that eventful period, should hazard it negligently, unadvisedly, or selfishly."

THE SURGERY OF THE PROSTATE FROM THE STANDPOINT OF PERSONAL EXPERIENCE.

BEING THE ORATION IN SURGERY.*

By GRANVILLE MacGOWAN, M. D.,
LOS ANGELES, CALIFORNIA.

(*Continued from p.* 1062.)

I have operated on forty-nine individuals ranging in ages from forty-nine to eighty years, for enlarged prostate with retention and catheter life, by what is known as total prostatectomy—which, of course, does not mean the removal of the organ—for this is not possible, except it be thoroughly ripe, when it can be stripped off the urethra like a bead off its string, as in the cases reported by Gibson and Paul Thorndyke. Prostatectomy means rather the removal of such tumors as can be shelled out, or if it be necessary, cut out, in order to clear the channel for the free passage of the urine. Twenty-eight of these were perineal operations. Twenty-one were suprapubic. Of those operated on through the perinæum there were four who died. Two of these, the youngest, were aged forty-seven and forty-nine years respectively, and had carcinoma of the prostate. One of these had also an impassable stricture, requiring perineal section without a guide. The prostate was known to be enlarged but was not believed to be obstructive until an attempt was made to enter the bladder with the finger through the membranous urethra; the hard nodules, four in number, felt fibroid and were removed. The individual died from secondary hæmorrhage on the fourteenth day. He was an alcoholic, and had had total retention for three days when he came into my hands. The man of forty-nine years was a poor farmer who had led a catheter life for three years. There was increasing difficulty in the passage of the instrument, until its introduction became almost impossible. The prostatic prominences felt smooth, but were dense and rather difficult to excochleate. They did not look cancerous or feel distinctly so, but proved to be carcinomatous upon microscopical examination. This man died within twenty-four hours from loss of blood. The third had fibrous stricture of the entire urethra complicated by cancer of the prostate. This was recognized as cancerous, but there was an obstructing nodule which could not be removed by the Bottini, and it was cut away as a palliative measure of last resort. He died from secondary hæmorrhage. The fourth was a large, fat asthmatic, aged seventy-three years, with an enormous prostate. Operation was required to relieve him of atrocious suffering of long duration. He contracted the grippe on the fifth day, and died of cardiac failure from non-septic pneumonia on the ninth day, when his prostate wound was nearly healed. Of the suprapubic cases, my first, a man aged sixty years, was complicated by stone and an impassable stricture and died on the third day, of uræmia. This was before I commenced to use normal salt solutions by hypodermoclysis in my operations. My third case, a poor and ignorant Mexican, seventy-four years old, commenced to urinate naturally and left the hospital before his wound was thoroughly healed. He was careless and got fly blown. He returned to the hospital three weeks after he had left, the whole pelvis filled with maggots, which had eaten through the cartilage of the symphysis, causing separation of the bones. He died in a few days. The next fatal case was that of a man upon whom I had done a Bottini operation for a pear-shaped median intravesical projection. My assistant had turned on too great an ampèrage and the platinum knife being too hot it did not close the blood vessels. The result was a profuse hæmorrhage within an hour, to which my attention was called by the ward nurse after I had finished a prostatectomy upon another man. His bladder was opened suprapubically and no cut or tear I made in the operation stopped bleeding till he died in a few hours. Two years ago, a patient upon whom I had done a combined prostatectomy died on the seventeenth day. His suprapubic wound was almost healed and he was urinating naturally. We had not had a single adverse symptom; he had been sitting up in bed talking pleasantly to his nurse and a relative, making plans for the future, when he put his hand to his heart with a sudden cry of pain and was dead before they could assist him, probably from embolism. No post mortem was allowed.

In 1902, I operated on a man aged sixty-eight years, who had been ailing for many years with stone in the bladder and a very tight stricture, together with an enlarged prostate. He had had a number of severe hæmorrhages caused by the stone, which was a very rough one, and was much exhausted. He had a great terror of operations, and it was only when he was very sure that he would die, that he consented to be operated upon to satisfy his wife and his children. He refused to take proper nourishment, or could not take it, I do not know which, and died of exhaustion about ten days after operation.

To those who calculate by percentage alone, this list of nine deaths may seem a high one, but in all these cases but two, a painful death was certainly known to be rapidly approaching, and the operation should in no way be charged with the death. In the case of the farmer aged forty-nine years, with cancer, if I had suspected the nature of the disease before operation, I should have done a Bottini upon him or have established suprapubic drainage with a DePezzer or Senn drainage tube and thus have prolonged his life. With the case of hæmophilia the death is hardly chargeable to prostatectomy, but rather to the carelessness of a hospital assistant in not watching the ampèrage of the current used to heat the blade in the preceding Bottini operation, for the pear-shaped nodule with its pedicle was cut in half as beautifully as if done with a knife. I do not know that the man who was supposed to have died from an embolus did so at all, but his prostate had been removed seventeen days before and he had not left the hospital, for his wounds were not entirely healed. He died suddenly, and death may have been caused by the operation. The maggot case was clearly criminal neglect on the part of the patient and his relations in removing him from the hospital. Deducting these 5 cases from the total of 49, we have 4 deaths in 44 cases, which is 9½ per cent., including two cases which in the light of my present experience I should never have operated on except by the Bottini method.

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* Delivered before the Medical Association of the State of California, at Santa Barbara, April 21, 1903.

From reading the text of almost any modern work on general surgery the average physician might readily conclude that these operations were very uncertain in their results and very dangerous. This represents ultraconservatism, the disagreeable point of view which always tends to retard the advancement of good work in surgery. And then, again, after reading the articles published by certain operators, who have no deaths and whose cases are always thoroughly healed and recover the voluntary power of urination in eighteen or twenty days, grave suspicions that the reports are doctored to gain a desired reputation for extraordinary skill are more than likely to be entertained. The former make the operation too difficult to attract the ordinary surgeon, the latter make it appear so easy and so certain in its results, that it must inevitably cause great damage and loss of life by its being entered into very lightly by many who are incompetent to perform it properly or take good care afterward of those operated on. No one operation is suitable to all cases, and the ultimate results which are very excellent in the majority, are sometimes far from being perfect. Performed as they are upon old men whose bladders are diseased and misshapen, whose urethras are often the seat of tight strictures, and whose kidneys act very imperfectly, whose nutrition is poor and who, too frequently, have diseases of other vital organs, the wonder is, not that we do not always obtain perfect success, but that we ever do so, and not that we sometimes lose a man from operation, but that any ever get well.

The coast is well charted and it is not necessary for us to be wrecked upon the known reefs or points of rocks that may be seen. A death from uræmia, where proper precautions have been taken before, during, and after operation, is entirely unnecessary. Death from purulent infiltrations of the abdominal wall or the perinæum is also easily prevented. But the perils of secondary hæmorrhage, of thrombosis, of testicular abscess, of multiple abscesses of the kidney, or of the imperfect removal of the obstruction by perineal operation, are things which cannot always very well be provided against.

I wish to emphasize the fact that it frequently is not the largest or most prominent tumors, those which are the easiest felt by the finger, that form impediment to urination. It sometimes happens that large tumors easily shelled out are removed from both sides of the urethra and a few small nodules situated directly beneath the mucous membrane of the bladder neck are left, because they are not deemed of importance or because they are not easily enucleated, and afterward it is found that the patient cannot empty the bladder, or can do so only very imperfectly, because the real obstruction was not taken away. In order to obtain a perfect and lasting result *all* tumors should be removed, for any which are left may readily grow and become larger. This is very well exemplified in some bladders which are in my possession, where nodules which at the time were deemed too small to bother with, subsequently grew to proportions which could ultimately have caused obstruction.

(*To be concluded.*)

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Wisconsin State Medical Association.—The fifty-seventh annual meeting of the Wisconsin State Medical Association was held in Milwaukee, on June 3rd. A new constitution was adopted which implies a complete reorganization of the association, together with a change in its relations toward the American Medical Association and the local societies. Henceforth only one component medical society shall be chartered in any county. In the event of the existence of two societies an effort shall be made to consolidate them in one society, or if this be found not feasible a new society shall be formed by the authority of the State Association. The following officers were elected: President, F. E. Wallbridge, of Milwaukee; first vice-president, James Mills, of Janesville; second vice-president, C. C. Gratiot, of Shullsburg; secretary, Charles S. Sheldon, of Madison; treasurer, Sidney S. Hall, of Ripon. Edward Evans, of La Crosse, was selected as delegate to the meeting of the American Medical Society, in 1904, at Atlantic City, N. J.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

[*Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:*

XXIV.—How do you treat delirium tremens? (Answers due not later than May 11, 1903.)

XXV.—How do you treat the summer diarrhœa of children? (Answers due not later than June 10, 1903.)

XXVI. How do you treat habitual abortion? (Answers due not later than July 10, 1903.)

XXVII.—How do you treat paraphimosis? (Answers due not later than September 10, 1903:

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of $25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED*) that the answers be short, if practicable, no one answer to contain more than six hundred words.*

Only subscribers to the New York Medical Journal *(including regular and volunteer officers of the medical corps of the United States Army, Navy, and Marine-Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.*]

The prize of $25 for the best essay submitted in answer to question XXIII has been awarded to Dr. Clarence A. McWilliams, of New York, whose paper appears below:

PRIZE QUESTION NO. XXIII.

THE TREATMENT OF INGROWING TOENAIL.

By CLARENCE A. McWILLIAMS, M. D.,

NEW YORK.

As usually seen, this condition affects the nail of the great toe, most frequently on its outer side, although both sides of the same nail and likewise the nails of both great toes may coincidently become affected. It consists either in a curving of the nail toward the plantar surface in such a manner as to cut into the adjacent soft parts, or the cuticle at the side of the nail overgrows and overlaps the latter, in which condition the term "overgrown skin" is more appropriate than "ingrown nail." In either case the overlapping cuticle, on account of the pressure of the sharp edge of the nail, becomes ulcerated, and this ulcerated surface becomes covered with granulations which exude pus, more or less local cellulitis being a consequence. We have then two elements of trouble, each of which aggravates the other, and each of which must be considered in treating the condition: (1) The buried edge of the nail, (2) the overhanging inflamed soft parts. The condition is almost invariably an acquired one, and that, too, in adolescent or adult life. Hence the question of prophylaxis is very germane to our consideration of the treatment because the trouble may be readily avoided in the majority of instances by rectifying influences which cause it. These are as follows: Pressure of a shoe or tight stocking which is too narrow, crowding the toes together. This crowding is also aided by high heels which cause the feet to descend into the front of the boot. Shoes should consequently be worn which have low heels, and which are of sufficient breadth so as not to cause any pressure of the toes together. The overgrowing of the cuticle is favored by the injurious practice of rounding off the corners of the nail, which procedure buries the angle in the cuticle, consequently the nail should be pared squarely across, at right angles to its long axis, leaving the corners untrimmed and long enough to project beyond the fold of skin on each side. We are usually called upon for advice in the matter only when the condition is more or less developed, and our treatment will naturally then divide itself into, first, palliative treatment; secondly, radical treatment. Palliative measures are in order in mild cases, and consist, in the first place, in providing properly fitting, wide shoes with low heels. All pressure is to be removed from the toes. If the ingrown nail be on the outer side of the great toe, a small roll of gauze may be inserted between the great toe and the second one, close to their bases, and next to the web, where it may be held by a small strip of adhesive plaster. This will separate the two toes, and will remove the pressure pain. This roll should not project far enough forward to impinge on the sensitive overgrown cuticle. This latter may be drawn toward the plantar surface by applying small adhesive plaster strips circularly. The buried nail edge should be elevated by inserting under it a small roll of cotton or lint, or tinfoil by means of a probe, everting at the same time the nail edge by a pair of forceps. The lint may carry on it some astringent medication, such as powdered lead nitrate, or a solution of alum (ʒvi to ℥i of hot water). This lint treatment is often as painful as a cutting procedure and may require the application of cocaine to carry it out satisfactorily. The bending of the nail is made easier by scraping its centre thin with the edge of a piece of glass or a knife. Granulations should be thoroughly curetted away under local cocaine anæsthesia, and the raw area should from time to time be touched with the silver nitrate stick. Severe cellulitis may be combatted by interdicting walking, and the continuous application of cold soothing lotions (lotio plumbi et opii, liq. alumin. acet., sol.

bichloride 1-2000, or Thiersch's sol.). The simple device of Dr. G. B. Webb will be found very serviceable in not too advanced cases.

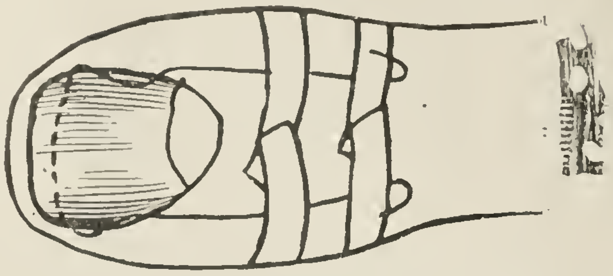

Fig. 1.—Showing application of silver wire to hold aside fleshy parts from nail.

As the drawing shows, it consists of a piece of silver wire of the thickness of an ordinary pin, carefully bent to fit under the free surface of the nail, catching and lifting up the lateral nail edges as far back as the cuticle. Artery forceps will act as pliers. The ends are carried along the dorsum of toe and strapped down to the skin with adhesive plaster Cotton should be twisted about the points which have previously been bent away from skin. By this means the ragged edge of nail is replaced by the smooth, round, non-irritating surface of the wire. There is no discomfort if the wire is properly moulded and the patient is able to wear a boot without pain. This wire must be worn till the nail grows out properly.

Radical measures should be adopted at once in all severe cases without resorting to palliative ones, and even in many mild cases the quickest and least painful procedure is often a cutting one. Palliative treatment will often fail, and we are many times finally forced to operate, hence, we shall save much time for our patients if we operate at once. In addition we can promise a cure by the latter method, which we can rarely do by palliative procedures. The following simple method, which is a modified Auger's operation, has given me invariably good results, and I have never had a recurrence after it has once been properly performed.

Operation: If there is time to do so, the foot and toes are prepared the evening before the operation as for any surgical procedure. The granulations on the cuticle, being a great source of subsequent infection, should be particularly disinfected. If they are not too tender, curetting them away will be the surest means. The toes should be very thoroughly scrubbed with green soap, followed by ether, then alcohol, and bichloride solution (1-1000). A green soap poultice should be left on the toes till the time of operation, or they may be wrapped in gauze soaked in formalin solution. Disinfection should be gone through again just preceding the operation. If haste is necessary, disinfection may be performed just previously to the operation alone. The four outer toes and the foot should be enveloped in sterile towels. A small round rubber tourniquet is wound about the base of the toe and tied tightly. This renders the operation less painful by confining the cocaine solution in the toe. It has the additional advantage of making the procedure bloodless so that at no time is it necessary to ligate any vessels. Ethyl chloride is sprayed upon the side of the toe until it becomes perfectly white (frozen). This renders the insertion of the hypodermic needle, the barrel of which is armed with cocaine solution, 2 per cent., entirely painless. Three injections only of cocaine are necessary—one at the very base of the nail in the matrix, a second in the middle of the side of the nail, and a third under the nail bed in front.

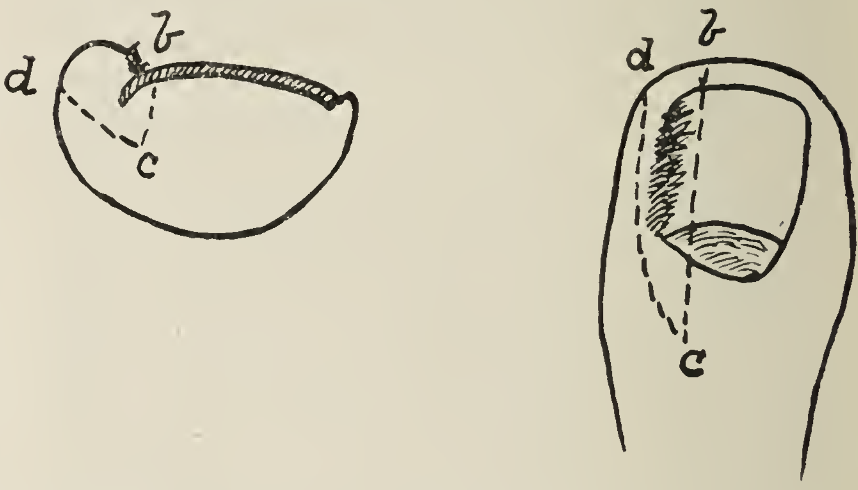

Fig. 2.—Showing incisions from the upper surface and diagrammatically.

The drawings explain the incisions fully. The first, b. c., is made directly through the nail, beginning well beyond its base, and carried down to the phalanx itself underneath. A second incision, c. d., passes through the prominent overhanging cuticle, at such a point that the soft parts on the side, after the operation, shall be flush with the new formed nail edge. The two incisions join underneath on the phalanx, and all the soft parts, together with the nail included between these two incisions, are excised in a wedge-shaped manner. The most important point in the operation consists in going far enough back beyond the base of the nail, and sufficiently deep, to excise all of the matrix, which will prevent reproduction of the offending nail edge. A couple of silk sutures may be passed to bring the raw edges together, or it may be left unsutured, since the bandage will bring the raw surfaces together fairly well. If a thick dressing is applied, the patient may hobble about on the foot at once, and after three or four days, walking will be comparatively comfortable. A wet dressing will allay any inflammation. Ten days usually suffices for the wound to heal. Both sides of the same nail may be done in a similar manner at the same sitting, and with very little increase in the local discomfort. This operation has given me perfect results in a large number of cases, and I have never seen a recurrence of the difficulty after its proper performance. For completeness of description, I add some other methods of procedure which are in use, but which have never given me the same satisfaction as the above method. The cure of an annoying ingrown nail makes for the doctor a very grateful patient. The above method is so simple that no physician need hesitate to perform it, even though he be not a surgeon. Avulsion of the nail is sometimes practised, either its half or the entire nail. The nail is torn out forcibly with the forceps (under cocaine anæsthesia), a knife blade being pushed up under it to free it from the matrix. This may effect a cure but it is very uncertain as the nail may grow out again in exactly the same condition as it was previously, while in addition, it may reproduce itself deformed (clubbed). Touching the side of the nail with a red hot iron or cautery after avulsion may prevent recurrence. It takes a much longer time to heal than the preceding method.

Cotting's operation is particularly applicable to cases in which there is much infection of the soft parts.

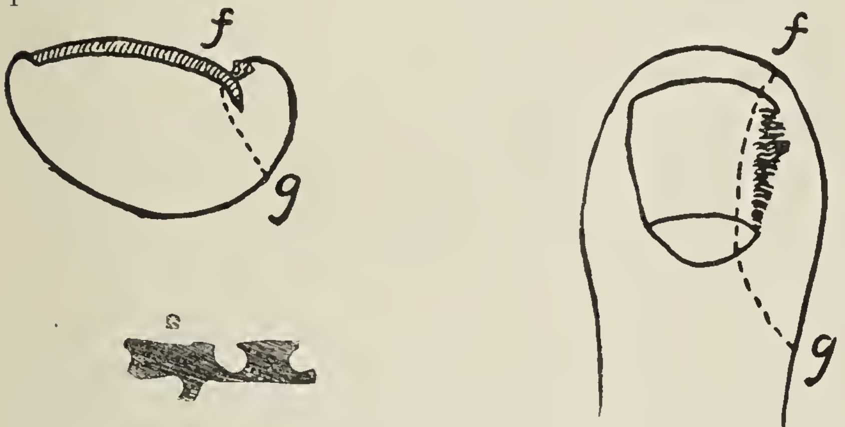

Fig. 3.—Showing from upper surface and diagrammatically the shaving off of soft parts.

In this operation all the soft parts are sliced off flush with the side of the nail, so as to leave a raw surface extending from a level with the base of the nail to the end of the toe, the entire plane of which very nearly equals the dorso-plantar diameter of the toe. The curved portion of the nail (including most particularly its matrix) is then cut off, and the raw surface allowed to heal by granulation. The cicatrix will tend to draw the soft parts away from the edge of the nail. This operation is usually followed by good results so far as a cure is concerned, and it is relatively simple. It leaves a large scar, it requires a much longer time to heal, and is more painful than the operation first recommended in this paper by the writer. There is a considerable number of other operations recommended for the relief of this condition, which need not be described. Finally for cases which obstinately recur, or in which the nail has become greatly deformed, or the entire matrix inflamed, extirpation of nail and matrix may be performed by rectangular incisions.

In summing up the treatment, then, of ingrown nail, I should advise in mild cases where there is no great amount of local tenderness and inflammation, and where the nail edge is not immovably imbedded in the lateral cuticle, properly fitting wide shoes and the paring of the nail squarely across. In addition the nail edge should be lifted out of its bed by the efficacious device of Dr. Webb (see above) or by the insertion of lint or tinfoil, and the granulations curetted away. When these measures have been tried without proportionate benefit for a reasonable length of time, or when these measures are very painful in their application in the milder cases, a cutting operation should unhesitatingly and confidently be recommended. In severe cases palliative measures only waste time and discourage the patient. Of the operative procedures the modified Auger's method, as given above, will produce a permanent cure in the quickest time and with the least pain.

50 East Fifty-third Street.

Dr. William S. Thomas, of New York, writes:

Excepting in advanced cases, the treatment should be palliative before a radical operation is advised.

Palliative Treatment.—A narrow strip of gauze soaked in a saturated solution of alum is tucked well under the ingrowing edge of the nail with the flat end of a probe. If there is much inflammation the overlying bandage is kept wet with the alum solution until the acute symptoms have subsided.

If the nail is deeply ingrown, moistened lead nitrate powder is applied along its edge and the toe bandaged. In two days the edge of the nail is softened and is removed easily. Granulations and pus disappear when the edge of the nail ceases to cut into the tissues.

While under treatment the patient selects a pair of shoes and brings them to the surgeon for approval. They should be low heeled and roomy at the toe, but the important feature of a proper shoe is its inner margin. This should be a straight line, and not curving outward at the toe.

Operation.—In aggravated cases the following operation gives promise of a cure. The toe is scrubbed with green soap and water, the nail cut short and thoroughly cleaned the day before, and a sterile dressing bandaged on. At the time of operation the foot is scrubbed as before and soaked in a hot 1 to 1,000 bichloride solution. A 2 per cent. cocaine solution is injected through a fine needle intracutaneously, not subcutaneously, beginning at the tip of the toe and proceeding along around the affected side nearly to the joint. If this is done carefully there need be no pain at any time after the first prick. A drop of cocaine solution is then injected deeply at three or four points along the ingrowing edge. Next the needle is thrust to its full length under the nail near and parallel to the affected edge and the piston pressed during its slow withdrawal. The previous cocainization has made this deep puncture painless. The toe is tightly ligated at its base with a tape to lengthen the duration of anæsthesia and make the operation bloodless. After five minutes, when the effects of the cocaine are well diffused, a scalpel with its edge forward is plunged vertically into the dorsum of the toe a little anterior to the joint, with its edge forward and well toward the affected edge of the nail. It is carried down the inner side of the bone but not deeply enough to pierce the skin of the plantar surface. It is then brought forward with a sawing motion, severing the edge of the nail with its matrix. The next incision, starting at the same point as the first, is carried forward in the flap so as to remove in a wedge-shaped piece all of the fragment of nail and matrix. The edge of the remaining matrix is trimmed and the flap is sutured to the toe with a few stout silk sutures, one of which pierces the nail and all inserted with a curved Hagadorn needle. Dry sterile gauze and bandage are applied before the ligature is removed, to prevent hæmorrhage.

The foot should be kept elevated as much as possible for four days, when the sutures are removed. Asepsis and bandaging are continued for a week when union will be firm. If there is any infection of the wound, rest, elevation, and a wet dressing will relieve pain and cause resolution.

(*To be continued.*)

Therapeutical Notes.

The Local Treatment of Chancre and Chancroids.—Lieutenant-Colonel Zacarias Rojos de Molina (*Journal of the Association of Military Surgeons,* March), the Mexican delegate to the association, said that, after having exhausted all modern means, he had fallen back on the classic "black wash," without regard to formula, whether French, English, or American. It was cheap, clean, and easy of application. He advised the patient to take a thin sheet of absorbent cotton, and soaking it well in the preparation, taking care to shake the contents of the bottle previously, cover the ulcer therewith. This was repeated four times a day.

When the ulcer is of an indolent or phagedænic character he has infallible success with the application of the following powder:

℞	Salicylic acid	2 parts;
	Talc or zinc oxide	10 parts.

M. After three or four applications of this powder, the ulcer is cleaned, and the use of black wash is continued until complete cicatrization is effected.

In indurated chancre he makes use of no other topical means than that described in the treatment of chancroids, black wash.

On the appearance of the infarction of the inguinal glands, which is a characteristic symptom of a syphilitic infection, he gives the patient one mercurial pill, formula Ricord, every day; and he has observed that with this practice the secondary manifestations do not present the usual intensity.

The Opium Habit.—Dr. Elliott I. Osgood, of Chu-Cheo (*China Medical Missionary Journal,* April) gives a very satisfactory account of the success attained in the breaking up of the opium habit among the Chinese at Chu-Cheo. Dr. Osgood's plan was to give four pills daily of either Dr. Macklin's or Dr. Beebe's antiopium prescription, and supplement this, at the time of the craving or other symptoms, with glonoin, sparteine, digitalis, or passiflora (the tincture of the passion flower). The craving nearly always ceased at the end of three days.

Dr. Beebe's pill is as follows:

℞	Quinine sulphate	12 drachms;
	Extract of cannabis indica	11 drachms;
	Extract of nux vomica	10 drachms;
	Sodium phosphate	2 ounces.

M. Make into 1,280 pills.

Dr. Macklin's prescription is:

℞	Quinine sulphate	2 grains;
	Extract of belladonna	⅙ grain;
	Extract of nux vomica	⅙ grain;
	Extract of cannabis indica	¼ grain.

M. For one pill.

Some of the patients, says Dr. Osgood, complained that the latter pill increased their craving, but a change to the former satisfied them. Glonoin ($^{1}/_{100}$ grain) acted well in the restlessness and sparteine (¼ grain) was a splendid heart tonic.

With the departure of the craving, a building up process was adopted. The tonics used were usually arsenous acid, $^{1}/_{120}$ grain, struchnine sulphate, $^{1}/_{120}$ grain, and hydrochloric acid, 1 drop; or nux vomica, $^{1}/_{10}$ grain, and zine phosphide $^{1}/_{25}$ grain. This dose was given three times daily. Of passiflora, Dr. Osgood says that it "is the finest remedy for sleeplessness we have used. For these opium patients two teaspoonfuls divided into two doses was necessary, but for an ordinary person from ten to fifteen drops will induce refreshing sleep. There are no evil after effects. With this remedy the opium patient almost invariably got sleep each of those first three nights when the craving was on."

For Acute Respiratory Catarrh.—*Progrès médical* for May 23rd ascribes the following to Bocquillon-Limousin:

℞	Pure sulphanilic acid	10 grammes (150 grains);
	Sodium carbonate	8.05 grammes (140 grains);
	Distilled water	200 grammes (6⅔ ounces).

M. From 3 to 6 dessertspoonfuls daily, in two doses.

℞	Pure sodium sulphanilate.	10 grammes (150 grains);
	Distilled fennel water	200 grammes (6⅔ ounces).

M. Three tablespoonfuls twice daily.

NEW YORK MEDICAL JOURNAL
AND
PHILADELPHIA MEDICAL JOURNAL.
CONSOLIDATED.

A Weekly Review of Medicine.

ESTABLISHED IN 1864.

FRANK P. FOSTER, M.D., Editor.
KENNETH W. MILLICAN, M.R.C.S., Associate Editor.

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NEW YORK, SATURDAY, JUNE 20, 1903.

PUBLISHERS' ANNOUNCEMENT.

It is with very great satisfaction that the publishers announce the consolidation of the NEW YORK MEDICAL JOURNAL *and the* PHILADELPHIA MEDICAL JOURNAL. *This is in line with the most conspicuous tendency of the present time in the conduct of great enterprises—that of amalgamation. Harmonious constituents bound together by unity of management, and sustained in their combination by concentration of resources, form a whole which is vastly more powerful than any one of its elements alone. From their inception both journals have been governed by the same policy; they have both worked for the best interests of the medical profession and of humanity, regardless of commercial considerations. Each journal has had a very wide circle of readers composed of the best elements of the profession, and each, we believe, has exerted a strong influence for the betterment of medicine. Issued as a unit from this date, the amalgamated journals will enjoy all the advantages of a centralized and economical management, which cannot but give them still greater strength and usefulness. Whatever features in each journal were specially appreciated by its readers will be continued, and no effort will be spared to institute such new ones as experience, coupled with constant observation of the profession's needs, may indicate as being called for. The general offices and editorial rooms will remain at No. 66 West Broadway, New York, with branch offices in Philadelphia and Chicago.*

THE CONSOLIDATION OF THE *NEW YORK MEDICAL JOURNAL* AND THE *PHILADELPHIA MEDICAL JOURNAL.*

As has been briefly set forth in the foregoing Publishers' Announcement, the *New York Medical Journal* and the *Philadelphia Medical Journal,* beginning with this issue, are to constitute a consolidated journal. In bringing about the consolidation the publishers have not been actuated solely by a desire to enlarge the subscription list, though they do not profess to have been unmindful of the advantage to be derived from such accretion. They have cherished the far higher purpose of combining and furnishing to an enlarged circle of readers all the features thought to be of special value in the two journals. We shall exert all possible efforts for the realization of this purpose.

Before the consolidation the *New York Medical Journal* was free of all commercial influence, and so was the *Philadelphia Medical Journal.* Two journals more harmonious in their aims and methods do not exist, and it is most fitting, therefore, that they should so combine their resources as to further those aims and improve those methods to the utmost. This we believe to be wholly feasible under the unification of the two. Fortunately, the two cities, New York and Philadelphia, are of such ready access to each other that we apprehend no difficulty in dealing with medical matters of local interest in each city, especially as we shall maintain a Philadelphia office at which the editor will frequently be present. If New York is the larger of the two towns, and therefore presumably the scene of more events, we do not for a moment forget that Philadelphia is conspicuously glorious in the annals of medicine or that she is destined to be forever a leader in the progress of our profession. We shall see to it that she is fittingly represented in our columns.

We have a few words in particular to say to the readers of the *Philadelphia Medical Journal*—a host of cultured and progressive physicians. They have done well to subscribe to such an excellent journal. Let us assure them that their favorite periodical is not to be merely absorbed—snuffed out, so to speak. Though it loses its distinctive title, it will perpetuate itself as an integral part of our united publication, even as a woman, when she marries, does indeed lose her father's name, but parts with not one whit of her individuality or of her influence. We have received from the accomplished editors of the *Philadelphia Medical Journal* a clean and able journal; we shall endeavor so to sustain its excellence as to merit the continuance of its patronage.

THE CHICAGO DRAINAGE CANAL.

In the opinion of the Chicago Department of Health, proceedings in the suit of the State of Missouri and the city of St. Louis for a Federal injunction against the further operation and development of the main drainage channel of the Chicago sanitary district, on the ground that such operation and development are or will be injurious to the water supply of St. Louis, have reached a stage which justifies the publication of the results of the chemical and bacteriological examinations of the streams between Lake Michigan and the Mississippi River, made for the purpose of determining their sanitary condition and quality both before and after the opening of the drainage canal. This publication is further justified, in the department's opinion, by the fact that certain medical journals published in Illinois have said that "from a sanitary standpoint the canal, after an expenditure of forty to fifty million dollars, is a failure, a blunder;" that "the city of Chicago continues to be a centre for dissemination of typhoid bacilli to all parts in the surrounding country;" that "in the history of the present drainage canal, from its inception to its completion, the bacteriologist and scientific sanitarian is conspicuous by his absence;" that "the system was undertaken without the approval of eminent sanitarians;" and that "a stupendous sanitary blunder has been made." These statements, the department thinks, are calculated to "prejudice the decision of the suit." Hence its efforts to counteract their influence by the publication of a volume entitled, *Report of Streams Examination, Sanitary District of Chicago.*

Disregarding the elaborate chemical investigations set forth in the report, we find this important statement: "The facts indicate that the colon bacteria, which are present in such large numbers in Chicago sewage—undoubtedly in much larger numbers than typhoid bacilli—disappear almost completely in less than 150 miles' flow. Since all investigators are agreed that the colon bacillus is more hardy than its relative the typhoid bacillus, and can live in water for a longer time, there is every reason for supposing that the latter microbe dies out with at least the same rapidity." We have before now commented upon examinations of the water in the channels through which the Chicago sewage passes, and we are still inclined to the opinion that its contamination is rendered innocuous before St. Louis is reached. The matter, however, is one that courts much further investigation.

AN INDEX FOR THE PHILADELPHIA MEDICAL JOURNAL.

A separate index will be prepared for the incomplete volume of the *Philadelphia Medical Journal* covering the period from January 1 to and including June 13, 1903, a copy of which will be sent free of charge to all our readers who apply for it prior to August 1, 1903. Those desiring copies are requested to notify us at once, in order that the publishers may know how many copies will be required to meet the demand.

The index to the consolidated Journal, which will appear in due course in our issue for June 27th, will include the index of the *New York Medical Journal* for the period between January 1 and June 13, 1903, inclusive, as well as that for the subsequent numbers up to the end of the volume.

MEDICINE ON THE STAGE.

The medical profession seems to occupy a large share of the Paris stage at present, according to the *Gazette médicale de Paris* for May 2nd. At the Grand-Guignol, the *System of Dr. Goudron and Professor Plume,* an adaptation by M. André de Lorde from a story by Edgar Allen Poe, is a psychological melodrama. *Tenton,* at the Palais-Royal, shows, among other things, Dr. Bricholet auscultating the chest of a demi-vierge. Dr. David Mathieu, in Anatole France's *Crainquebille,* at the Renaissance, appears to be a sympathetic picture of a physician. *Incognito,* at the Vaudeville, and *Les Surprises du Kodak,* at the Gymnase, also turn upon the medical profession. In *Doctors,* at the Théâtre Mondain, the motif is evolved from the error in diagnosis made by a young Paris surgeon, who has performed an ovariotomy in a farmhouse on a woman whose malady turned out to be a simple pregnancy! On this the *Gazette* comments caustically as follows: "The part of the countrywoman is well enough conceived, for the author doubtless knows that side of his subject thoroughly; as to the "medical" rôle, it is simply *ridiculous.* Ovariotomy is no longer performed in country places, even if it were possible that such errors in diagnosis could be perpetrated. The medical *mise-en-scène* is simply infantile." *Soyons optimistes*, of Zamacoës, at the Capucines, and *Dis que t'es médecin*, by MM. Louis Janot et Louis Lacroix, at the Bouffes-Parisiens, are also "medical" plays. Surely a revival of *Le médecin malgré lui* would be in order!

APPENDICULAR INFLAMMATION AND THE THREAD WORM.

Bearing upon the question of the part occasionally played by the thread worm in setting up disease of the vermiform appendix is a case reported by Bégouin (*Revue française de médecine et de chirurgie*, 1902, No. 4; *Zentralblatt für chirurgie*, May 2d). The patient was a young woman in whom the diagnosis lay between recurrent appendicular inflammation and ovarian disease. The right ovary, which was found cystic, was removed. The vermiform appendix, though of normal appearance externally, was somewhat stiff, and it, too, was removed. It was found to contain fifteen living oxyurides, partly collected into a ball, and its mucous membrane was slightly ulcerated.

ANTITHYREOIDIN.

We may readily conceive of the advantage sometimes to be derived from a therapeutic measure having the opposite effect to that of thyreoid feeding. According to Moebius (*Münchener medicinische Wochenschrift*, 1903, No. 4; *Zentralblatt für Chirurgie*, April 25th), such a measure lies in the use of the serum of the thyreoidectomized sheep, otherwise known as antithyreoidin. The author has prescribed it in daily amounts of seventy-five grains in a number of cases of exophthalmic goître. It never did any harm, and it was of undoubted benefit. The pulse was not much decreased in frequency, but the circumference of the neck became less, the goître grew less tense, and the patients felt quieter and slept better.

FOURTH OF JULY TETANUS.

In the hope that it may not be too late, we exhort our readers to oppose the handing over of toy pistols to boys on the occasion of the approaching national holiday. The cartridges, as we have repeatedly been informed, contain earth, and this earth may very well be inoculated with the germ of tetanus. Something has been said by one of our contemporaries of the necessity of early and efficient treatment of the wound inflicted by these pistols, but in our way of thinking there is no safety save in renouncing them altogether.

News Items.

Society Meetings for the Coming Week:

MONDAY, *June 22d.*—Cambridge, Mass., Society for Medical Improvement; Baltimore Medical Association.

TUESDAY, *June 23d.*—Buffalo Academy of Medicine (Section in Obstetrics and Gynæcology); Richmond, Va., Academy of Medicine and Surgery; New York Medical Union (private).

WEDNESDAY, *June 24th.*—New York Academy of Medicine (Section in Laryngology and Rhinology); New York Pathological Society; American Microscopical Society of the City of New York; Philadelphia County Medical Society; New York Dermatological Society (private); Auburn, N. Y., City Medical Association; Berkshire, Mass., District Medical Society (Pittsfield).

THURSDAY, *June 25th.*—New York Academy of Medicine (Section in Obstetrics and Gynæcology); New York Orthopædic Society; Brooklyn Society for Neurology; Medical Society, of Richmond, Va.; New York Celtic Medical Society.

FRIDAY, *June 26th.*—New York Society of German Physicians; Philadelphia Clinical Society; Philadelphia Laryngological Society.

SATURDAY, *June 27th.*—New York Medical and Surgical Society (private); Havana Medical Society, New York (private).

Change of Address.—Dr. Edmund P. Shelby to 116 West Seventy-fourth Street, New York. Telephone, 3125 Columbus.

Dr. William Gray Shauffler to Briarcliff Lodge, Briarcliff Manor, for the summer.

A Bequest to a Hospital Association.—By the will of Adolph Rosenbaum $250 is left to the Jewish Hospital Association.

The Erie County Medical Society. — The eighty-second annual meeting of the society was held at Buffalo, on June 9th.

The East Side Hospital of New York has asked of the State Board of Charities in Albany for permission to incorporate.

Professor Lorenz Sails for Europe.—In response to a cablegram, Dr. Lorenz has decided to cancel all his remaining engagements in America and to return to Europe at once.

"Fourth of July Lockjaw."—During the past five weeks in Chicago there have been seven deaths from tetanus due to the use of fire-arms, toy pistols, and explosions from fireworks.

Women to Incorporate a Hospital.—The Woman's Charity Club, of Boston, held a meeting on June 4th to take action for the incorporation of the Charity Club Hospital. The Charity Club is already incorporated.

The Emergency Hospital, Washington, D. C.—According to the annual custom, the staff of the Emergency Hospital was reorganized recently, Dr. John T. Dunn, class of '01, Georgetown, the senior assistant, was appointed head resident physician; Dr. John T. Hussey, class of '03, Georgetown, as junior assistant.

Chicago Eye, Ear, Nose and Throat College.—Dr. J. Elliott Colburn has been elected professor of ophthalmology in the faculty of the Chicago Eye, Ear, Nose and Throat College.

Syracuse Academy of Medicine.—The one hundred and eighty-first regular meeting of the Syracuse Academy of Medicine was held on June 2nd, at the Dillaye Memorial Building, Dr. F. O. Donohue presiding.

Utica's Health Report.—According to the annual report of the health officer of Utica, N. Y., the mortality during the past year did not exceed 14 per 1,000, showing a decrease of 28 from the figures of the preceding year.

College of Physicians and Surgeons, Chicago.—At the recent meeting of the faculty of the college, Dr. William L. Ballenger was elected to the chair of otology, rhinology and laryngology, to fill the vacancy made by the resignation of Professor M. R. Brown.

Harlem Hospital.—President Braman, of the board of trustees of Bellevue and Allied Hospitals, has advertised for bids for the construction of the new Harlem Hospital, at Lenox Avenue and One Hundred and Thirty-sixth and One Hundred and Thirty-seventh streets.

Cows Impounded by the Sanitary Authorities in Queens County.—According to instructions from the board of health, 260 cows were impounded on June 9th, after the poundmaster had inspected four stables and found that they did not comply with the health requirement.

A Donation to Hospitals.—By the will of Charles M. Chittenden, of Washington, D. C., who died at the Presbyterian Hospital in New York, on May 17th, the sum of $50,000 is equally divided between the Presbyterian Hospital and the Home for Incurables, at Fordham.

To Tax a Medical Society.—The tax commissioners have decided to tax King's County Medical Society and the Masonic Temple, and this in spite of the fact that by the passage of certain general laws, last winter, both of these institutions were exempted from taxation.

Municipal Civil Service Examination.—Six hundred and ten physicians, including fifty women, underwent a competitive examination for the position of medical examiner. Competitors must hold a State medical certificate, and a standing of 75 per cent is required to place a competitor on the eligible list.

Nottingham Medical Bill Signed in Michigan.—This bill, or the amendment, which is aimed at the prevention of obscene advertisements by any medical practitioner, under penalty of revocation of his license by the medical board of registration was signed in Lansing, Mich., on June 5th, by Governor Bliss.

The Seaside Hospital of St. John's Guild.—The seaside hospital of the guild opened on June 15th for the reception of patients. This is the largest children's summer hospital, and depends on voluntary contributions to carry on its good work.

Elmira Academy of Medicine.—The regular session of the Elmira Academy of Medicine was held on June 3rd, when papers were read by Dr. Ainsworth, on Plethora; Dr. Robert P. Bush, of Horseheads, on Prognosis; Dr. Seafuss, of Webb's Mills, on the Drug Habit; and Dr. C. W. M. Brown, of Elmira, on Percentage Infant Feeding.

Medico-Chirurgical Society of Central New York.—The regular meeting of the society was held in Syracuse, N. Y., on June 4th, when officers for the coming year were elected as follows: Dr. E. H. Keeler, of Syracuse, president; Dr. F. H. Doud, of Syracuse, first vice-president; Dr. A. R. Grant, of Utica, second vice-president, and Dr. M. E. Santee, of Cortland, secretary-treasurer.

Fordham Home for Incurables.—The Home for Incurables celebrated its thirty-seventh anniversary on June 11th. The doors were thrown open for inspection of the buildings, which have a frontage of 454 feet on Third Avenue, and are surrounded by beautiful lawns with flowers and shade trees. There are now 300 incurable patients in this unsectarian home. Dr. Israel C. Jones is the medical superintendent.

A Case of Plague in San Francisco.—The first case of plague since March 16th was reported by the health authorities of San Francisco on June 10th. The patient is a Chinese gambler. How he caught the infection is not known. A resolution adopted on June 9th, by the San Francisco Board of Health prohibiting Chinese from living in cellars and basements has since been enforced with great vigor.

Health of Michigan.—The reports of the State board of health show that, during the month ending May 30th, the most prevalent disease in Michigan was rheumatism, which has the highest average for ten years past. It was closely followed by neuralgia and amygdalitis, while consumption averaged little more than a third the number of cases. During last month measles, scarlet fever, intermittent fever, and influenza were more prevalent than in April, though the mortality was not large as compared with many other places.

The Medical Society of Milwaukee County, Wis.—As a sequel to the meeting of the State Medical Society of Wisconsin, held on June 4th, at Milwaukee, the Milwaukee County Medical Society, which has been the rival of the older Medical Society of Milwaukee County, decided to settle their differences by merging into the latter society, of which Dr. H. M. Brown is president. The announcement made by Dr. J. V. R. Lyman, president of the Wisconsin State Medical Society at the society's banquet elicited hearty applause. The "Medical Society war" has been going on for many months.

Health of Cleveland, Ohio.—According to health statistics, Cleveland was never in a better condition, with the exception of a few cases of typhoid fever, which disease is, however, on the wane.

Columbian University.—The medical and dental departments of Columbian University, Washington, D. C., held their annual commencement at the National Theatre, on June 1st, Dr. Needham presiding, and Dr. William W. Keen, of Philadelphia, making the address to the graduates.

Cornell Medical College.—The commencement exercises of the Cornell Medical College were held on June 3rd at Carnegie Hall. President Jacob Gould-Schurman, of Cornell, gave diplomas to fifty-eight men and two women. Professor Polk, dean of the school, distributed the prizes.

The South Dakota Board of Health.—Under the recently enacted medical practice act, the licensing of physicians was taken away from the board of health and a board of examiners established. The governor has appointed the separate board of health provided for in the new law as follows: President, Dr. A. L. Peterman (R), of Parker; superintendent and secretary, Dr. D. W. Robinson, of Pierre; and vice-president, Dr. J. W. Ellis, of Elk Point.

Knife and Fork Surgery.—This is the nickname given at the hospitals to a new method introduced by Dr. Koenig, of Berlin, viz., the use of suitably devised metal instruments when handling surgical cases, to avoid the contact of his fingers with the tissues of the patient, thus obviating all chance of sepsis, either to himself or the patient. Dr. Koenig has found that he can perform many operations, even that for appendicitis, without even touching the wound.

Harper Hospital, Detroit.—The new operating rooms at Harper Hospital, which have been two and a half years in process of construction, will be completed within the next two months. It is said to be perhaps the finest and best-equipped operating room in the United States. The great amphitheatre, seating 317 students, is the only one of its kind in the country, and the light is so arranged that from the topmost tier the student may observe the knife of the surgeon working on the patient in the centre.

Health of Chicago.—The bulletin of the Chicago health department announces that during the week ending June 6th the death rate was 21 per cent. less than during the previous week. The death rate of children under five years old is also shown to be 7.2 per cent. less during the five months of the present year than during the same period in 1902. The "murderous mortality" of the present season has been principally among those at the most valuable age and those over sixty, and was greater among the male than the female population. Consumption heads the list and is closely followed by pneumonia.

A Case of Myelitis.—A girl of sixteen is suffering from myelitis at St. Luke's Hospital. She was apparently in good health until within two weeks of her removal to the hospital, when she was seized with pains in the back, and found difficulty in walking. She grew worse and in ten days was paralyzed from her waist down, the upper part of her body being wholly unaffected.

Buffalo Marine Hospital Site Obtained by the United States Government.—The Le Couteulx St. Mary's Benevolent Society for the Deaf and Dumb was granted an order in special term by Justice Childs, of Buffalo, on June 5th, which permits the society to sell a portion of its property on Main Street to the United States Government. The price demanded is $22,000. This property will be used as a site for the new Marine Hospital of this port.

Onondaga Medical Society.—The following officers were elected at the meeting of the society on June 2nd: Dr. E. J. Wynkoop, of Syracuse, president; Dr. J. H. Burch, of Baldwinsville, vice-president; A. S. Hotaling, of Syracuse, secretary; Dr. F. H. Flaherty, of Syracuse, treasurer. Dr. Gregg, Dr. Bannan, Dr. Ayling and Dr. Marsh were elected delegates to the New York State Medical Society. Dr. John J. Buettner and Dr. W. C. McKeeby, of Syracuse, were elected to membership in the society.

Consumptive Hospital in Chicago.—St Ann's Sanitarium, at Forty-eighth Street and Division Avenue, Chicago, Ill., was dedicated on May 31st, by Bishop Muldoon. The sanitarium, which will accommodate 250 patients, is exclusively for consumptives, and will be conducted by the Poor Handmaids of Jesus Christ, a Roman Catholic sisterhood devoted entirely to the care of the sick. This is not a permanent home for incurables, but is primarily for the cure of tuberculous patients in the early stages of the disease. The sanitarium was built entirely by public subscription.

The Ohio State Medical Association.—The association met in Dayton, Ohio, on June 4th. Fully four hundred physicians were present. The annual address was made by the president, W. C. Chapman, of Toledo, and the oration by John B. Deaver, of Philadelphia. Addresses were also made by A. P. Ohlmacher, superintendent of the State Hospital for Epileptics, in Gallipolis, Ohio, on the Laboratory Movement in Ohio's State Hospitals; and by J. W. McCormack, of Bowling Green, Ky., on Medical Organization. Dr. McCormack is chairman of the committee on organization of the American Medical Association. Brooks F. Beebe, of Cincinnati, chairman of the Council of the Ohio State Medical Association, also spoke. An incidental feature was the conduct of a clinic at the eye ward of the Soldiers' Home in which three soldiers were operated on for cataract. Dr. Green, of Dayton, C. W. Tanqueman, of Cincinnati, and Dr. J. E. Brown of Columbus, Ohio, operated before an assembly of oculists. Cleveland was selected as the next place of meeting.

University of Virginia.—At the final exercises of the Medical Department of the University of Virginia twenty-five students graduated.

The Medical Society of New Jersey.—The one hundred and thirty-seventh annual meeting of the society will be held at the Coleman House, Asbury Park, on June 23d, 24th and 25th, Dr. E. L. B. Godfrey, of Camden, presiding.

Six at One Birth.—A woman in Ussher Town, on the Gold Coast in West Africa, on the 18th of May, gave birth to six living babies, five boys and one girl, none of whom survived many days. The same woman had four babies at a birth in 1895.

The Stevens Prize.—The Stevens triennial prize of Columbia University for original research has been awarded to Dr. L. Pierce Clark and Dr. Thomas P. Prout, of New York. Subject: Status Epilepticus; a Clinical and Pathological Study of Epilepsy.

The Massachusetts Medical Society.—The one hundred and twenty-second anniversary of the society, celebrated in Boston on June 9th, was largely attended by medical men throughout the State. In the section in medicine, papers were read by Dr. E. P. Joslin, of Boston; Dr. H. F. Hewes, of Boston; Dr. R. W. Swan, of Worcester; Dr. H. G. Wilbur, of Fall River, and Dr. J. C. Munro, of Boston.

In the section in surgery, papers were contributed by Dr. H. G. Stetson, of Greenfield; Dr. S. J. Mixter, of Boston; Dr. Paul Thorndike, of Boston; Dr. Homer Gage, of Worcester, and Dr. C. S. Chapin, of Great Barrington.

Omaha-Douglas County Medical Society.—At a special meeting on June 9th, at Omaha, Neb., eighty members being present, Dr. W. O. Bridges gave a resumé of the International Medical Congress at Madrid, to which he was a delegate. Dr. B. F Crummer, president of the Nebraska State Medical Society, presented the attitude of the organized profession towards irregular and unlawful practitioners. The legal side was presented by James P. English. A committee of physicians was appointed to act in conjunction with the State Board of Health in executing the functions of that body. A committee of physicians, with City Health Commissioner J. B. Ralph as chairman, was named by the society to investigate all proposed legislation by the City Council or Board of Education bearing directly or indirectly on the health of the community and to endeavor to have every enactment conform to recognized medical standards of sanitation.

A Medical Society's Protest Against the Russian Atrocities.—The Eastern Medical Society, at its meeting held on Friday evening, June 12, 1903, unanimously adopted the following resolutions:

Whereas, The appalling atrocities committed on the Jews at Kishineff, during a recent outbreak against them, by a certain portion of the populace, have called forth profound grief and indignation throughout the civilized world, wherever the human heart throbs with the sufferings of its kind. Be it therefore

Resolved, That, as citizens of this Commonwealth and as men whose profession brings them daily into close contact with pain and sorrow, and therefore places them in a position to better comprehend the depths of suffering and distress, we join in the universal protest against such brutal persecution which has been revived of late through the neglect, and to all appearances, with the connivance of the Russian authorities; and be it

Resolved, That, as citizens of the United States, for whom Russia has repeatedly professed sentiments of good will and amity, we earnestly urge the claims of the Jewish people of Russia to a speedy relief from conditions and legal disabilities which practically place them outside the pale of justice and equity; and to secure protection against such outrages as the recent Kishineff massacre. We cannot too strongly deplore the occurrence of such a truly horrible calamity that befell not only the Jews at Kishineff, but the entire Jewish race; be it

Resolved, Therefore, that we voice the universal sentiment as expressed individually by prominent citizens, and collectively at many protest meetings; that the people of the United States should exercise through the good offices of their government, sufficient influence—justified by the friendship between the two nations—to redress the injuries inflicted upon the Jews at Kishineff, and to prevent the recurrence of outbreaks such as have amazed and shocked the civilized world;

Resolved, That these resolutions be spread on the minutes of the society and copies of same be sent to President Roosevelt and to the medical press.

The Committee.
A. E. Isaacs, M. D.,
A. Rovinsky, M. D.,
D. Robinsohn, M. D.,
J. Barsky, M. D.,
Z. Sharfin, M. D.

Albert Miller, M. D.,
Secretary.

East Side Physicians Protest.—At a mass meeting of the physicians held under the auspices of the East Side Physicians' Club, June 12, 1903, Dr. Julius Solow presiding, the following resolutions were unanimously adopted:

Whereas, A number of physicians practising on the East Side of the Borough of Manhattan have been arrested on warrants in criminal proceedings instituted by the commissioner of the health department without previous notice, warning, or opportunity to present their defence of alleged charges of larceny, in accordance with the best traditions of the health department, and

Whereas, This hasty, unwarranted, and unprecedented aggressive action of the department may tend to alienate the rank and file of the profession from their natural union and cooperation with the said department, and

Whereas, The medical profession of this city as a unit have always stood ready to serve the department of health without fee or favor, be it

Resolved, That the physicians of the East Side in mass meeting assembled, deplore the circumstances and emphatically protest against the unmerited and summary procedure of the department of health, a procedure which demoralizes the community, offends the profession, and gravely injures the accused physicians and their families, by branding them as common criminals, and be it further

Resolved, That a copy of these Resolutions be forwarded to His Honor the Mayor of this city, to the commissioner of the health department, and to the press.

Dr. Julius Solow,
President East Side Physicians' Club.
Dr. I. William Schapiro,
Secretary.

Manhattan State Hospital, West, Ward's Island.—On Thursday, June 18th, the following operations were performed by Dr. Leroy Brown: (1) Inguinal hernia; (2) retroversion of uterus (two cases); excision of cervix; perinæorrhaphy (two cases); removal of cervical polypus.

The Elkhorn Valley Medical Society.—The regular semi-annual session of the Elkhorn Valley Medical Society will be held in Norfolk, Neb., July 7, 1903. This is a district society conducted for scientific and social purposes only, and is in no way affiliated with the county, State and national federation. Any physician residing in Nebraska and complying with the requirements for membership in his county or distric society under the constitution adopted at the last State Medical Society meeting is eligible.

To Restrict the Sale of Poisons.—The Medicolegal Society, of the District of Columbia, met in Washington on June 8th. A committee was appointed, composed of Dr. J. Ramsey Nevitt, and James E. Padgett, and Alexander Weeks, attorney, to formulate bills for introduction at the next session of Congress, restricting the sale of drugs. A committee was also appointed to draft new measures providing better care for the insane of the District. The society adjourned till September.

The Michigan State Medical Society.—The thirty-eighth annual meeting of the society was held in Detroit, on June 11th and 12th. Dr. A. E. Bulson, of Jackson, Mich., presiding. Sections were held in general medicine, surgery, ophthalmology, otology, and in obstetrics and gynæcology. There were general meetings, and a reception was given to the members and ladies by the Wayne County Medical Society.

Sudden Death of Dr. I. N. Love.—Just as we go to press, we learn with deep regret of the sudden death from apoplexy of Dr. Isaac N. Love, formerly of St. Louis, and recently of New York. Dr. Love had been to Paris where he accompanied a patient recently operated on for appendicitis. He returned on the Cunard liner the *Aurania,* which reached the bar at night on June 17th and left quarantine early on the 18th. At breakfast Dr. Love made one of his well-known and highly appreciated witty speeches, and at its close fell to the floor. Notwithstanding the prompt attention of the ship's surgeon, Dr. Love died within a few minutes. He leaves a wife and two children. Dr. Love has for many years had a friendly following as the editor of the *Medical Mirror.* We understand that the funeral will take place in St. Louis.

Disgraceful Hazing Incident.—As a result of a case of hazing at the Chicago County Hospital, the entire interne force may be suspended and possibly dismissed by Warden Happel. The victim of the hazing, Dr. Leon Block, was severely burned in consequence of ether being poured over his bare back by his brother internes, and fire being set to the inflammable ether by the accidental striking of a light, the joke being carried on in the dark to avoid recognition of the perpetrators. In addition to three immense blisters on his body, Dr. Block sustained severe bruises through falling off a table to the stone floor. Dr. Block refuses to divulge the names of his persecutors.

Surgical Instrument Makers Combine.—Surgical instrument makers, importers and dealers, to the number of sixty-five, held a meeting in Detroit on June 8th, for the purpose of perfecting an organization similar to that of the dental trade. It is not the intention to make a trust, but simply to combine for mutual protection, the instrument dealers, through a clearing house, keeping one another informed of all bad accounts, and any customer being refused further credit until his account is settled. The body will be known as the American Surgical Trade Association, and any reputable manufacturer, dealer or importer may become a member.

American Congress on Tuberculosis.—The annual session of the American Congress on Tuberculosis was held June 10, 1903, at the New York Press Club. The new council provided for by the revised constitution of last year, was formally elected, and was instructed to arrange for a Congress of Tuberculosis at St. Louis, in 1904. The following honorary presidents were elected: Laymen—John Hay, Secretary of State; Justice Charles G. Garrison, supreme Court, New Jersey; Abram H. Dailey, Brooklyn; General Russell M. Alger, the Earl of Minto, Governor-General of Canada. Medical—Dr. A. N. Bell editor of the *Sanitarian;* Dr. J. G. Adami, professor McGill University, of Montreal; Prof. Charles H. Hughes, St. Louis; Dr. N. Senn, surgeon-general, State of Illinois, Chicago; Dr. Presley M. Rixie, surgeon-general U. S. N.

The following officers were elected: President, Dr. E. J. Barrick, of Toronto; first vice-president, Dr. P. H. Bryce, Toronto, Secretary Provincial Board of Health; second vice-president, ex-Chief Justice L. Bradford Prince, Santa Fé, N. Mex.; third vice-president, Dr. Charles K. Cole, Helena, Mont.; fourth vice-president, Dr. Sofus B. Nelson, State Board of Health, Pullman, Wash; fifth vice-president, Dr. A. M. Linn, State Board of Health, Des Moines, Iowa. Samuel Bell Thomas, Esq., of New York was elected secretary, and Clark Bell, Esq., who resigned as fifth vice-president, was elected treasurer. The entire list of honorary vice-presidents, consisting of governors of States and Provinces, and prominent public men of foreign countries and States, was reelected, as was the list of vice-presidents at large, and from States consisting of three physicians and two lawyers of the States of the Union and Provinces.

The council elected were as follows: Moritz Ellinger, Esq., of New York, chairman; Dr. J. Mount Bleyer, of New York; Dr. W. F. Drewry, of Petersburg, Va.; Dr. A. P. Grinnell, of Burlington, Vt.; Dr. Mihran K. Kassabian, of Philadelphia, Pa.; Dr. H. Edwin Lewis, of Burlington, Vt.; Dr. M. Markiewicz, of New York; Dr. Richard J. Nunn, of Savannah, Ga., and Dr. J. W. P. Smithwick, of La Grange, N. C.

PHILADELPHIA AND PENNSYLVANIA.

A Philadelphia Hospital Receives a Bequest.—By the wills of James and Mary Brown, of Philadelphia, the Methodist Episcopal Hospital, of that city, will receive the sum of $1,000, a similar sum being given to the M. E. Church.

A State Nurses' Association in Philadelphia.—A meeting was held in the College of Physicians and Surgeons, in Philadelphia, on June 8th, for the purposes of organizing a State association of nurses. It was attended by nurses from all parts of the State.

The New Surgeon General of the State of Pennsylvania is Dr. Robert Le Conte, who has been recently appointed by Governor Pennypacker. Dr. Le Conte's appointment indicates the high esteem in which he is held by the governor. He is not a politician and, indeed, takes no part in politics; but he is one of the few surgeons who succeeds in maintaining a large practice and at the same time being in the forefront of nearly all social events.

Philadelphia County Medical Society.—A business meeting was held by the society on June 17th when the following business was transacted: Balloting for members; report of censors; appointment of the nominating committee; amendment to various articles and sections of articles. A meeting of the delegates and alternates to the Medical Society of the State of Pennsylvania was held immediately after the meeting.

The Typhoid Epidemic Continues.—The medical profession is doing all it can to combat this disease, and a proposition has been made to class it among the serious contagious diseases. Of the total number of new cases, there were 29 located in the northwestern section of the city, 16 in the twenty-eighth, three in the twenty-ninth, five in the thirty-second, and five in the thirty-eighth wards. There has been a decrease of 77 in the number of typhoid cases.

The Death Return in the city during the week ending June 13th, was 430, an increase of 3 over that of the previous week, and an increase of 18 over the corresponding week of last year. The deaths include: apoplexy, 17; Brights' disease, 9; cancer, 16; casualties, 9; cholera infantum, 12; pulmonary phthisis, 63; convulsions, 8; diphtheria, 11; heart disease, 34; scarlet fever, 2; typhoid fever, 21; pneumonia, 20; marasmus, 13; old age, 15; smallpox, 4; uræmia, 15; whooping cough, 4.

Smallpox in Philadelphia.—There has been a fresh outbreak of smallpox in this city. For the week ending June 13th there were forty-eight new cases, an increase of seventeen over the previous week. Since January 1, 1903, five hundred and seventy-two cases of smallpox have been reported to the Board of Health. These were distributed throughout the city, but have latterly been localized in the twenty-eighth ward, which is to be made the object of a vigorous crusade by the health authorities with a view to stamp out the disease. Landlords will be compelled to thoroughly fumigate and cleanse any infected house, and when other measures are not deemed sufficient, destruction of property by fire may be resorted to. The Twenty-eighth ward in Philadelphia, which is the neighborhood principally affected by smallpox, is to be the object of a vigorous crusade by the health authorities with a view to stamping out the disease.

A Philadelphia Physician Killed in Honduras.—Dr. Albert Ferrari, a native of Honduras, who recently graduated at Philadelphia in order to practise medicine in Honduras, was killed shortly after his return to his native land by Honduras soldiers, who as the outcome of a quarrel between their captain and Dr. Ferrari's cousin, the chief of police, opened fire on the chief and his friends, among whom was Dr. Ferrari. Dr. Ferrari having become an American citizen. the case has been laid before President Bonilla.

Contagious Diseases.—The return of contagious diseases during the week, as compared with the reports of the previous week, was as follows:

	Week Ending June 13.		Previous Week.	
	Cases.	Deaths.	Cases.	Deaths.
Diphtheria	62	11	66	7
Scarlet fever	72	2	95	2
Typhoid fever	238	21	315	26
Smallpox	48	4	31	4

The Condition of the Schuylkill River.—On June 16th Dr. Abbott, accompanied by Dr. A. Butcher, Dr. L. C. Wessels, Dr. Charles P. Mercer, Dr. Thomas J. Beatty, Dr. A. A. Cairns, Dr. H. L. Sidebotham, and six inspectors of nuisances, went to Reading, where they boarded a tug and then came down the Schuylkill river This trip was made for the purpose of ascertaining at what points foul matter was emptied into the river. It is the intention to compel those who are polluting this stream to stop the nuisance, by bringing suit if necessary. Dr. Abbott is professor of hygiene at the University of Pennsylvania.

The Department of Health and Charities is now in full working order. Dr. Edward Martin, the new director of this department, assisted by Dr. A. C. Abbott, chief of the bureau of health, has been at work ever since he took hold of the city's health department to improve the organization of the health bureau. Dr. Martin is giving special attention to the milk standard. He is seeking information on this subject and recently had a long conference with the New York health authorities relative to the manner in which the metropolis looked after the milk standard. He was so pleased with what he saw then that it is said the same system is to be introduced here. Dr. Martin believes that a considerable part of the number of deaths accrues from impure milk. He is determined to sift the matter thoroughly, and not only will he have an examination made of the milk that comes to the city, but he also intends to make an inspection of the dairies that furnish the milk.

Pith of Current Literature.

BRITISH MEDICAL JOURNAL.

May 30, 1903.

1. Case of Trypanosomiasis, By Patrick Manson.
2. On the Possibility of the Occurrence of Trypanosomiasis in India, By W. B. Leishman.
3. Three Cases of Trypanosoma in Man, in Entebbe, Uganda, By C. J. Baker.
4. The Use of Acid Phosphate of Sodium in Alkalinity of the Urine, By Robert Hutchinson.
5. Clinical Observations on the Treatment of Inoperable Cancer by Formalin, By A. F. Meredith-Powell.
6. Guaiacol in the Treatment of Small Pox, By J. J. Ridge.
7. A Mercurial Injection for Use in the Intramuscular Treatment of Syphilis, By F. J. Lambkin.

1, 2, and 3. Studies of Trypanosomiasis.—The researches of (1) Patrick Munson and C. W. Daniels, (2) W. B. Leishman, and (3) C. J. Baker constitute a practical symposium of all that is known of this rare parasitic malady, and evidence also that it is not confined solely to African territory, as hitherto supposed. Altogether, six cases are cited, only one of which has proved fatal. The diagnosis rests solely upon the microscopical evidences.

(1) The case of Mrs. B., aged forty years, for fifteen months a resident in the Congo Free State. She suffered three brief attacks of malaria from which she apparently recovered. On return to England was admitted, October 3, 1892, to the Hospital of the London School of Tropical Medicine, where she was the subject of close and prolonged observation extending over a period of five months. At first the blood examinations were negative, except that the leucocyte count "was peculiar." She was plump with fictitiously healthy appearance; pulse quick and feeble, 108; tongue rough and raw in appearance, with sensations of soreness and dryness; appetite capricious; bowels constipated; frequent vertical headaches; temperature on admission, 102.8° F., though during the succeeding night it fell to 96.6°; marked muscular feebleness with a tendency to palpitation on exertion; spleen very much enlarged, extending to the umbilicus and crest of left ilium; area of liver dulness somewhat greater than normal. Lungs, heart, and urine, to all appearances normal. "During her stay she seemed at times to be gaining ground; at other times her condition was almost critical owing to general weakness and prostration, accompanied by palpitation and nervous depression, especially so during and after an attack of diarrhœa at the end of November and the beginning of December. About this time she suffered from pain in the left thumb (accompanied by slight swelling and likewise tenderness of the upper and outer surface of the corresponding forearm, with slight discoloration), that persisted for weeks." Parts of January and February were passed at the seaside, but she returned to the hospital on the 24th of the latter month, only to return to her home on March 27th, in much the same condition as when she first entered our wards. During the second stay she exhibited another and more alarming attack of depression, apparently as the sequel of injection of horse-serum, it having been demonstrated by experiment that this was fatal to the life of trypanosoma. It may be added, *en passant,* that the injections were futile, and it was deemed wise to suspend them, since their hæmolytic action was most pronounced, the blood count dropping one-third in the course of a week. The parasites were not, apparently, affected by the serum. Later the injections were resumed, but the results were so untoward it was not deemed safe to continue the experiment further. The erythema, which was a marked feature in the case, was first observed during the primary "malarial" (?) attack while upon the Congo; at that time she suffered greatly from "prickly heat." The integument of limbs, and especially of the trunk and face, was involved, and the eruption was said to have been more marked during the initial pyrexia. Œdema, like the erythema, was most pronounced on the back and face, particularly in the vicinity of the loins and sacral region, and evidently involved the cutis as well as the subcutaneous tissue, so much so that the papillary ridges of the finger were distinctly observable, and for some time persistent after digital pressure. Ophthalmic examination in the macular region of each eye, an area of chorioidal atrophy with some pigmentary disturbance, most developed in the left organ. Outside the patch of atrophy in the right eye were small, regularly circular, discrete, whitish dots, at a deeper level than the retinal vessels. In the periphery of the fundus, in both eyes, were several disseminated small patches of a light color, apparently the result of the atrophy, some with, others without, pigmentary disturbance. Frequent examinations of the blood were made during the first three days in hospital, but no trypanosomes were found until October 27th, but they were immediately apparent when the films were subsequently examined. From this date, though few in number, the parasites were always found on prolonged examination. As to treatment, except for the employment of horse-serum, as before noted, this was confined to the administration of arsenicals and methylene blue, pushed to the limit of prudence, without apparent result, except to benefit the general health.

(2) Leishman's contribution would seem to prove that trypanosomiasis is not, as hitherto supposed, confined to the "Dark Continent," but that it is occasionally found in India, as a manifestation of the so called "Dum-dum fever (Dum-dum lies seven miles from Calcutta and is notoriously unhealthy, malaria in all its types, dysentery, and typhoid fever being especially rife). This conclusion was arrived at as the result of a post mortem. The victim, an invalided soldier, was admitted to Netley, in April, 1900, and died there seven months later. During this period he suffered from chronic dysentery; his temperature was seldom normal. The necropsy, made thirty-eight hours after death, revealed extreme emaciation, and gross lesions in the spleen and colon—the former was greatly enlarged and weighed 2 pounds and 7 ounces; the pulp was extremely soft, friable, and presented a curious appearance, and on making smear preparations enormous numbers of small, round, oval bodies were discovered among the spleen cells and red corpuscles, which were not then identified. Subsequently,

when working with the nagana (the trypanosoma of tsetse fly disease) the same forms were discovered. While not insisting upon the striking resemblance, as affording proof positive, he yet thinks the evidence, *prima facie,* favors the theory that, in the case cited, the malady was trypanosomiasis, either primarily, or as a complication. Also, that the chronic nature of the disease in the few recorded cases, is suggestive that man possesses an immunity that renders him very resistant to maladies of this precise class, viz., trypanosomiasis, nagana, surra, dourine, *mal de caderas,* etc. It is, moreover suggested that even Kula-azar and "sleeping sickness," probably belong to this group.

(3) Baker, medical officer at Entebbe, Uganda, details the history of three very interesting cases, all being in natives. One had apparently contracted the disease through leech bites; the other two revealed no source of infection that could be identified. The diagnosis was confirmed by finding the parasites in the blood. All recovered after a few days, though what form of treatment was adopted is unfortunately not stated. Baker suggests that many obscure cases of malaria, so called, occurring in Africa, may be due to trypanosomal infection, and that when the malarial parasite can not be found it is always wise to suspect the former, and that the trypanosoma should be sought for.

4. **Acid Sodium Phosphate in Alkalinity of the Urine.**—Dr. R. Hutchinson says that acid sodium phosphate being the chief cause of the acid reaction of normal urine, it might be expected to render the urine more acid when given by mouth. The author's experiments bear out this hypothesis, acid sodium phosphate having a greater acidifying effect upon the urine than any of the other drugs experimented with. Clinical tests in cases of alkaline urine from cystitis, also show it to be of great value. It is a useful adjuvant to urotropin, which acts best in acid urine. It is very soluble in water and may be given in doses of from thirty to sixty grains every three hours. Its only unpleasant effect is that it occasionally produces diarrhœa.

5. **Formalin for Inoperable Cancer.**—Powell's method of application of formalin in cases of inoperable cancer, is as follows: Absorbent lint is soaked in 2 per cent. formalin solution (commercial formalin one part, distilled water nineteen parts) and laid on the tumor. This is covered with jaconet and cotton wool and bandaged on. The dressing should be changed every six hours. After the third or fourth dressing the discharges and fœtor ceases; the further process is an aseptic one. In from three to seven days the tumor loses its elasticity, and becomes darkened, friable, and insensitive. The further use of formalin is painless, and separation takes place, which should be aided by snipping the fibrous bands that pass into the underlying granulations. Less than a 2 per cent. strength of solution will not properly harden the tumor mass, and if that percentage is exceeded, the application is painful, the diseased mass becomes surface hardened, separation is difficult, and there is a risk of eschars. By the autthor's method no local or general anæsthetics are required.

6. **Guaiacol in Smallpox.**—Ridge reports 43 cases of smallpox treated by him during 1902. Of these cases, five patients were unvaccinated, and these five died—a fact that speaks for itself. The author attributes the favorable course of the recovered cases chiefly to the use of guaiacol dissolved in olive oil—one part to eighty. The whole surface was anointed with this, with a cotton swab at least every four hours. It allayed the irritation and, after a few applications, almost abolished it. It seemed also to reduce the temperature and prevent consequent delirium, to check the maturation, and to cause the pustules to dry up. The only medicine given was a hydrochloric acid mixture, the diet being simple milk and broth, and no alcohol being given. A collateral advantage was the almost entire abolition of the loathsome odor from the eruption.

7. **A Mercurial Injection for Use in the Intramuscular Treatment of Syphilis.** By Dr. F. J. Lambkin. (*British Medical Journal,* May 30th).—The author recommends the use of mercury in the intramuscular treatment of syphilis in the form of a cream consisting of mercury, lanolin, and carbolic oil. It is much less painful than all other forms of mercurial injections, and its effects on the symptoms and the ultimate cure of syphilis are much more marked. He uses a mixture of two drachms of mercury, two drachms of lanolin, and four drachms of 2 per cent. carbolized oil. From five to ten minims should be given once a week as an intramuscular injection.

THE LANCET

May 30, 1903.

1. Clinical Remarks on the Results of Operations for Strangulated Hèrnia. By Arthur E. Barker.
2. A Clinical Lecture on Acholia. By W. B. Cheadle.
3. The Differentiation of the Continued and Remittent Fevers of the Tropics by the Blood Changes. By Leonard Rogers.
4. On Cases of Uncomplicated Myocarditis in Children. By George Carpenter.
5. Malignant Disease of the Colon; 14 Colectomies with 10 Recoveries. By H. Littlewood.
6. On Peritomy for Diffuse Corneitis and Other Affections of the Cornea. By Simeon Snell.
7. The Therapeutic Value of Alternating Currents Applied to the Abdominal Sympathetic Nervous System. By Samuel Sloan.
8. Successful Removal of More than Three Quarters of the Stomach for Cancer, with Gastrojejunostomy. By J. Lynn Thomas.

1. **Strangulated Hernia.**—Barker's lecture is a critical review of 406 consecutive cases of strangulated hernia, treated at the University College Hospital. Except in recent cases among very old subjects taxis is not advisable. Sloughing, perforation and peritonitis following the return into the abdomen of gut not sufficiently sound occurred in several cases submitted to operation.

2. **Acholia.**—Cheadle says that acholia is specially characterized by the absence of bile in the stools, without jaundice or signs of obstruction to the biliary outflow from the ducts. In some cases

the stools are merely pale, fawn color, or straw color, in others clay colored, or even absolutely white. The condition occurs not infrequently in adult high livers, but here it is only temporary. White stools of more persistent character and of more serious import, involving danger to nutrition, are met with in hot climates in fluor albus, or white diarrhœa, and in sprue. Acholic stools occur usually in children under five years of age, but by far the most often in the first two years of life. The advent of the soft, greasy, offensive, voluminous, white stools is speedily followed by marked impairment of the general health. The patient ceases to thrive, loses weight, the abdomen becomes full yet flaccid, the enfeebled abdominal wall yielding to the distended gases of the fermenting food in the intestines, and in prolonged cases the patient wastes steadily to emaciation. The causes of the disease are obscure. It is possibly a dental irritation reflex. The only other cause in addition to teething is surface chill. The indications for treatment are to ease the work of the liver, especially with regard to the digestion of fats and starches, and to assist its function. Bismuth and opium and hepatic stimulants are the medicines indicated.

3. **Blood Changes in Tropical Fevers.**—Rogers, after clinical pathological investigations of fevers at Calcutta, asserts that only two forms (of long duration) exist there—typhoid and malarial remittent. Most of the cases can be distinguished clinically. Of the remainder almost all can be diagnosticated by the serum test and by blood count—the percentage of lymphocytes being increased in typhoid fever of the large uninuclear leucocytes in malaria. The so called "non-malarial remittent" fever in natives, as described by Crombie, is nothing but typhoid. "Simple continued fever" is very rare, comparatively, if, indeed, it exists as a separate disease. "Low fever," characterized by a persistent pyrexia with slight afternoon rises, rarely above 101.5° F., by much depression, and by disappearance upon change of climate, shows the same blood changes that occur in malarial cachexia in the absence of active malarial fever; while it is clinically distinct it probably results from the debilitating effects of long tropical residence, includes latent malaria, and is not a new specific fever. Malta fever is exceedingly rare in Lower Bengal and Assam.

4. **Uncomplicated Myocarditis.**—Carpenter reports four cases in children occurring independently of endocarditis or pericarditis, with the microscopical findings in three. Presystolic and systolic mitral murmurs, and dilatation of the heart are found in these cases, but not always. Carpenter believes that murmurs existing for a time in the course of acute rheumatism and of chorea and then disappearing, are due rather to myocarditis than to endocarditis.

5. **Colectomy.**—Littlewood presents a table of fourteen colectomies for malignant growth, with ten recoveries, and a description of his method.

6. **Peritomy.**—Snell has performed Furnari's operation of excising a ring of the ocular conjunctiva, but without the cauterizing, in 100 cases of diffuse keratitis, with satisfactory results, and recommends it also for certain chronic corneal ulcerations.

7. **Alternating Currents.**—Sloan reports sixty seven cases, representing a variety of disorders that had resisted other therapeutic measures, in which he had applied the alternating current to the abdominal sympathetic system, with 80 per cent. of cases. He concludes from his experience that this treatment is of benefit in uncomplicated neuromuscular asthenia (without psychical elements), in visceral neuroses, in cases of "persistent sickness," some of them of reflex character, and in vasomotor cases, but that is of little help in neurasthenia, pelvic inflammations, septic endometritis, and epilepsy.

8. **Gastrectomy.**—Thomas reports a case of partial gastrectomy for carcinoma, and urges the importance of preoperative distention of the stomach, to determine the mobility of the growth.

BOSTON MEDICAL AND SURGICAL JOURNAL

June 11, 1903.

1. The Symptomatology and Diagnosis of Diseases of the Pancreas. By Reginald H. Fitz.
2. Small Contributions to the Surgery of the Intestinal Tract. By Johann von Mikulicz.
3. The Surgery of the Simple Diseases of the Stomach. By B. G. A. Moynihan.

2. **Surgery of the Intestinal Tract.**—Johann von Mikulicz deals with his subject as follows: (1) Cardiospasm and its treatment. This condition is the result of occlusion of the cardiac orifice of the stomach through muscular spasm. In advanced cases the entrance to the stomach will become so completely stenosed that the sufferer will die of starvation if unrelieved. The œsophagus undergoes a pouch-like dilatation and its wall becomes concentrically hypertrophied. Ordinary methods of treatment give only temporary relief. The author has devised the following operation which he has performed, once, with absolutely good results. The patient was operated on only three months ago, so that it is yet too soon to claim an absolute cure. The operation: The stomach was exposed by laparotomy, its anterior surface was incised, and through the wound a branched dilator was introduced and guided by the fingers of the operator's left hand into the stenosed cardiac orifice. The dilatation was effected gradually and persisted in until the blades of the instrument were about seven centimetres apart. (2) On peptic ulcer of the jejunum. Peptic ulcer of the jejunum occurs only after anterior gastroenterostomy (Woelfer's method). It usually occurs during the first week after operation, but its appearance may be delayed for several months. The symptoms it produces closely resemble those due to ordinary gastric ulcer. Its complications are perforation, either into the peritoneal cavity, or more gradually through the anterior abdominal wall. The formation of these ulcers is explained by the prolonged presence of gastric juices, undiluted and unneutralized by bile and pancreatic

secretions, within the lumen of the jejunum. From these facts the author concludes: (*a*) That we are no longer justified in performing anterior gastroenterostomy; at least not for benign affections of the stomach. (*b*) That the operation of choice is pyloroplasty with Finney's modification. If this operation is not feasible, then the choice must lie between gastroduodenostomy, as advised by Kocher, or posterior gastroenterostomy, v. Hacker's operation. (3) On operative treatment of severe forms of invagination of the intestines. The treatment outlined is proposed for those cases in which disinvagination is impossible. The ordinary operation is extremely dangerous. The author has operated on two cases by the following method. An incision 20 centimetres long was made along the left border of the left rectus abdominis. The colon was drawn into the wound, so as to expose freely a strip of its anterior wall, and it was then stitched, through its serous covering to the abdominal wall. Thus the visceral layer of peritonæum was united to the parietal layer. All gaps were tamponed. The anterior wall of the colon was now incised and the intussusception was exposed. The outer and inner layers of the intussusception were cut away, step by step, and a deep catgut suture was immediately introduced, to close the peritoneal pocket as soon as it was made. The mesentery was treated by the method of multiple ligation. The large artificial anus, left by the operation, was closed by the usual method at the end of some weeks. Both the patients treated by the author, according to the method just described, made an uneventful recovery. (4) On operation on malignant growths of the large intestine. The prevalent method of operation, excision of the tumor and immediate suture of the intestine, gives very bad results, the mortality varying from 30 to 50 per cent. The author advocates doing the operation in two steps. By this method there have been, so far, twenty-four cases placed on record with only four deaths. None of these deaths, however, was due directly to the operation. Dr. von Mikulicz has performed two such operations and he employs the following technics: The primary incision, the enucleation of the tumor, the removal of the lymph glands, etc., are performed in the same manner as in the ordinary operation. The difference is that, after the tumor is freed, it is drawn out of the wound, the loop of gut is stitched to the parietal peritonæum by sutures which only penetrate the serosa, and the abdominal wound is then closed leaving only sufficient room for the loop of gut. The tumor is now excised and an artificial anus is formed which is closed in the usual manner at the end of from two to four weeks. The permanent results of operation for malignant tumor of the large intestine are more favorable than is generally imagined. Out of twenty-four cases under observation, at the author's and Koerte's clinics, there has been no recurrence in nine cases after a lapse of more than four years.

3. **Surgery of the Stomach.**—B. G. A. Moynihan, by simple diseases of the stomach, means the non-malignant diseases. The great majority of simple diseases of the stomach, which are susceptible of successful treatment by surgical intervention, are those due to ulceration or to its complications and results. These conditions are classified and treated by the author in the following order: (1) Perforation of gastric or duodenal ulcers; (2) hæmorrhage from gastric or duodenal ulcers; (3) chronic ulcer, its various clinical types; (4) hour-glass stomach. The author reviews carefully each one of these conditions and discusses their ætiology, pathology, symptomatology, treatment, and complications. The following is a very condensed summary of his teaching: (1) Excision of the ulcer is unnecessary in acute perforation. The ulcer should be inverted and sutured. One point demands special emphasis, *i. e.,* perforating ulcers are multiple in about 20 per cent. of all cases. The whole stomach must therefore be carefully examined. If the ulcer should be in the duodenum, and if the suturing produces stenosis, gastroenterostomy is indicated. (2) Hæmorrhage from gastric or duodenal ulcers. (*a*) From an acute ulcer. The surgeon's aid will rarely be invoked, as there is a decided tendency to spontaneous arrest. In some few cases operation will be necessary. In such cases "a search for a bleeding point is futile, harmful, and, in my judgment, quite unnecessary." Gastroenterostomy is the most effective means of checking hæmorrhage and preventing its recurrence. (*b*) From a chronic ulcer. Bleeding from a chronic ulcer demands an immediate operation. Local treatment of the ulcer is not necessary. "A gastroenterostomy will, without doubt, prevent a recurrence of the hæmorrhage and lead to a rapid healing of the ulcer from which the hæmorrhage has come." (3) Chronic ulcer, its various clinical types. The author believes that many persons who have died from supposed malignant disease of the stomach, have succumbed to nothing more serious than chronic ulceration. Dyspepsia of the intractable, constantly recurring form, is more often due to mechanical defects of the stomach than to changes in the quality and quantity of the secretions. "Inveterate dyspepsia is, in itself, an ample warrant for surgical treatment." Gastroenterostomy in chronic ulcer of the stomach, gives very brilliant results. It is not only unnecessary, but futile, in such cases to attempt excision of the ulcer. "Gastroenterostomy will relieve the symptoms completely and permanently, and will permit of the sound healing of the ulcer." (4) Hour-glass stomach. The author doubts if this condition is ever congenital. In any case there is not, so far, any satisfactory evidence that it is. It is conceivable that it may be. It is possible to diagnosticate the condition positively if proper methods are followed. The author gives nine signs by which the condition may be recognized. The differential diagnosis resolves itself into separating the condition from obstructions of the lower part of the œsophagus and from pyloric stenosis. The treatment may be beset with difficulties. In many cases no single operation can be relied upon to give relief. In all cases one must constantly bear in mind that there may be multiple constrictions both of the stomach and of the duodenum. "The following operations may be practised: (1) Gastroplasty; (2) gastrogastrostomy or gastroanastomosis; (3) either of the foregoing, with gastroenterostomy from the pyloric pouch, in case of dual stenosis; (4) gastroenteros-

tomy from cardiac pouch, when the pyloric pouch is so small that it can be ignored; (5) gastroenterostomy from both pouches; (6) partial gastrectomy." The author has had the following experience in the surgery of the stomach: Perforating gastric or duodenal ulcers, 12 cases, 6 recoveries; gastroenterostomy for chronic ulcer, etc., 70 cases, 1 death; pyloroplasty, 3 cases, no deaths; hour-glass stomach, 15 cases, 3 deaths; gastroplication, 1 case, recovery; excision of ulcer for hæmatemesis, 1 case, 1 death.

MEDICAL NEWS

June 13, 1903.

1. Colchicum in the Treatment of Gout. By Charles C. Ransom.
2. Four Months' Experience with Antistreptococcic Serum in Pulmonary Tuberculosis. By S. G. Bonney.
3. The Origin of the Eosinophiles and their Diagnostic and Prognostic Importance. By Thomas R. Brown.
4. The Morbid Anatomy and Pathology of Tabes. By Joseph Collins.
5. Leucoplasia in Secondary Syphilis. By Douglass W. Montgomery.

1. **Colchicum in Gout.**—Ransom thinks we are liable to overlook the older remedies of value on account of the vast number of products of the new chemistry. From the year 580 A. D. to 1763, colchicum seems to have dropped out of sight. At the latter date, the *Colchicum autumnale*, or meadow saffron, which is the plant in use, was introduced by Baron Storck and soon became well known. It was the principal ingredient in many quack medicines of great popular repute. Its use was objected to by Pettit, Todd, and Copeland, as diminishing the interval between attacks, inciting a "habit," and giving rise to melancholia, insanity, paralysis, and angina pectoris. Colchicine, the active principle, "depresses the cerebral convolutions and the cord" (*sic*), causing loss of sensibility and of consciousness and diminished reflex excitability; the peripheral sensory nerves being also paralyzed, while the motor nerves and the muscles remain unaffected. Death occurs by asphyxia and the heart is weakened so that the pulse becomes intermittent. In small doses, it stimulates the liver. In large doses, it is a gastrointestinal irritant poison, causing vomiting, diarrhœa, and collapse. Biddle, Lewis, Storck, Hammond, C. S. Taylor, Chilius, and Maclagan consider it an active diuretic, while Graves, Gardiner, Fawcett, and Garrod deny this. The author's conclusions from personal observation of two cited cases are that the excretion of urine is diminished under its use; that the specific gravity is increased; and that the output of urea and uric acid is markedly greater. He considers the variance of opinion among the authorities as due to faulty and imperfect methods of investigation.

Although the favorite preparation nowadays is the wine, the author prefers the alkaloid as more reliable, pleasanter to take, and with less danger of disagreeable consequences. It is not necessary to push it to the extent of producing diarrhœa, and the author considers small continued doses to be best, and denies that there is danger of producing a "habit," or of driving the gout from the toe to the internal viscera. It is no more dangerous to a weak heart or inflamed kidneys than any other powerful drug, and in the latter case, it actually diminishes the amount of albumin excreted. We know nothing of its action in gout and use it empirically.

2. **Serumtherapy in Tuberculosis.**—The author states his failure to get satisfactory results with the serum some years ago, and says he was induced to undertake its use again at the suggestion of Dr. M. P. Ravenel, who attributed his former lack of success to improperly prepared serum or to the use of cocci of light virulence. A serum from any of the recognized types of streptococci will exercise a powerful influence over all others. In recommencing the use of the serum, only those cases were undertaken in which regimen and climate had proved of no avail. In all, the sputum was found to contain large number of streptococci, and was carefully taken in a sterilized bottle, before the partaking of food and after the throat and mouth had been carefully prepared. The report embodies 25 cases in private practice, all at the time residents of Denver, Colo. Three were practically cured; four showed very marked improvement and promise good recovery; five exhibit definite improvement, although the final outcome is as yet uncertain; eight show a degree of improvement, but hardly sufficient to modify a previously unfavorable prognosis; finally, in three cases there was no actual result. Severe urticaria followed the injections in a number of cases, and stiffness and pain in the joints were not uncommon. The author is emphatic as regards the curative effects of the injections, and considers his report amply justified.

5. **Leucoplasia and Syphilis.**—Montgomery presented a case of leucoplasia in secondary syphilis before the California Academy of Medicine, January 27, 1903, stating that the complication was not as rare as was once considered. The patient was a Scotchman, thirty-seven years of age; family history, rheumatism only; primary sore August, 1900; in October of the same year, bedridden with rheumatism of right ankle; February, 1901, universal rash and sores in mouth; in April, May, and June, sore scalp and falling out of hair, onychia on hand and foot. At the clinic, patient presented a general lenticulopapular eruption, in groups. The mouth presented the most striking and annoying affections, mucous patches, papules, etc., which caused the patient great suffering. Most remarkable was the occurrence on anterior portion of dorsum of tongue of a dense, solid, smooth, opalescent coating, which was at one time painful and is still sensitive to pepper, etc. Patient is a heavy smoker, in spite of warnings, and tobacco is well known as a cause of leucoplasia. The author differentiated mucous patches, and lichen planus. The prognosis of syphilitic leucoplasia is better than that of the disease from other causes. Smoking makes the prognosis almost hopeless. In the case presented, arthritism, lumbago, syphilis, alcohol, tobacco, ill-kept teeth, all played their part in the ætiology. The case might finally develop into epithelioma. Three out of four cases of secondary leu-

coplasia have occurred in women. In these cases, mercury must be used with caution, to avoid irritation of the mouth. Inunction may be tried, but the author favors hypodermic injections of the bichloride and the frequent swabbing of the mouth with chromic acid.

AMERICAN MEDICINE

June 13, 1903.

1. On Cysts and Other Neoplasms of the Pancreas. By Roswell Park.
2. Fourth of July Tetanus By H. Gideon Wells.
3. Nephrolithiasis, with Report of a Case. By Charles D. Lockwood.
4. Orbital Cellulitis as a Sequel of Scarlatina; The Report of Two Cases. By Burton Chance.
5. Arteriovenous Aneurysm of the Femoral Vessels; Ligation of the External Iliac Artery; Failure of Collateral Circulation; Amputation; Death. By Schuyler Colfax Graves.
6. A Case of Postoperative Tetanus, with Special Reference to the Focus of Infection. By Levi J. Hammond.

1. **Pancreatic Tumors.**—Park briefly reviews the literature and precedes a consideration of the varieties, modes of formation, symptoms, and treatment of pancreatic tumors, with a reference to those anomalies of the organ of which the operator should have knowledge. He mentions (*a*) Complete absence of the pancreas, (*b*) abnormities of the ducts, (*c*) annular pancreas—which may produce constriction of the duodenum, (*d*) accessory pancreas. The author adopts Robson and Moynihan's classification of cysts of the pancreas. 1. *Retention Cysts.* Impaction of calculi, and stricture of the duct are the intrinsic causes, chronic pancreatitis being the commonest cause of retention cysts by duct occlusion. Mere closure of the duct is not a sufficient cause, and the writer quotes Henricius's view that disturbed absorption of pancreatic juice is to be assumed. The extrinsic causes of retention cysts are given as pressure from without, abnormities in shape or position of the organ, and, rarely, closure or obstruction by parasites. 2. *Proliferation Cysts.* These include cystadenomata, which usually occur near the tail of the organ. Although their contents are often bloodstained they are not, properly speaking, blood-cysts. Also in this group are cystic epitheliomata, which are essentially cystic formations with cancerous deposits in their walls. 3. *Hæmorrhagic Cysts.* Hæmorrhage into a preexisting cyst must be distinguished from a true apoplexy of the gland with cystic degeneration of the clot. 4. *Hydatid Cysts.* Rare. 5. *Congenital Cystic Degeneration.* Rare. 6. *Pseudocysts,* better named by the writer "peripancreatic cysts," usually result from injury to the pancreas, and consist of collections of fluid in the lesser peritoneal cavity difficult to distinguish from true pancreatic cysts. The rapidity of their formation, especially after traumatism, and the location of the swelling are suggestive in the diagnosis. The symptoms of pancreatic cysts are not characteristic. Vomiting varies; emaciation is marked. Fat and undigested muscle fibres in the stools, and glycosuria are less frequent than in other pancreatic diseases. Sahli's test (by the administration of salol) may be useful. Cysts growing beneath the stomach and above the colon are best suited for operation. Aspiration is condemned. Drainage, anteriorly, posteriorly, or in both directions, should be undertaken when extirpation cannot be performed. The resulting fistula may remain open for years, without detriment. *Solid tumors* of the pancreas are briefly discussed, and an effort is made to measure the relative importance of the various symptoms. The occurrence of voluminous fatty stools followed by jaundice and then by glycosuria, together with epigastric pain and emaciation, should arouse the suspicion of pancreatic carcinoma. Similar findings in the stools and urine, together with attacks of colic in the upper abdomen point to a diagnosis of *pancreatic lithiasis,* which, however, only a discovery of calculi can confirm. The article concludes with the statement that a well-founded suspicion of pancreatic disease, acute or neoplastic, indicates surgical exploration, and that it is best to operate when in doubt.

2. **Tetanus.**—Wells calls attention to the relative frequency of tetanus just after July 4th, and to the fact that most of the cases follow blank cartridge wounds. The cartridge wads carry the bacilli from the dirt on the skin into the wound. Every blank cartridge wound should be treated seriously—cleanse thoroughly, remove all contused tissues and foreign bodies, cauterize, pack all pockets. A prophylactic injection of 5 cubic centimetres of antitoxine is advised for all cases seen only after a lapse of a few days. For tetanus itself the intraspinal injection of antitoxine appears more rational to Wells than the intracranial. If antitoxine is not obtainable, the injection of an emulsion of rabbit's or sheep's brain (secured aseptically) is recommended, based on Wasserman's demonstration that tetanus toxine is firmly combined by nerve tissue equally whether in its normal condition in the body or as an emulsion in a test tube. Prophylaxis by restriction of the use of firearms and fireworks is urged.

3. **Nephrolithiasis.**— Lockwood reports a case at length and emphasizes the importance of a study of the renal sufficiency before operating. He determines the quantity of urea excreted by each kidney, the freezing point of the blood and of the urine (cryoscopy), and the amount of sugar excreted by each kidney after the injection of phloridzin. Following the introduction of 2 mgms. of this substance deeply into the lumbar muscles the normal kidney excretes for one or two hours at the rate of about .42 per cent. of sugar. Before operation the functional activity of the kidneys should be stimulated by diuretic measures, and urinary antiseptics should be administered.

4. **Orbital Cellulitis.**—Chance reports two fatal cases of orbital infection occurring during convalescence from *scarlatina.* Both were in boys. The onset was sudden and the course rapid, in spite of generous incisions. In neither case was there evidence that the infection was an extension from

inflammation in an adjoining sinus. Vision, ocular movements, and pupillary reactions were destroyed. Sanious fluid, but no pus, filled the orbits in each case. No cultures were made of this fluid. The author suggests the occurrence of thromboses as causative agents.

MEDICAL RECORD.

June 13, 1903.

1. On Neurofibromatosis. By JOSEPH FRAENKEL and J. RAMSAY HUNT.
2. Organization of the Bureau of Public Health and Marine Hospital Service. By WALTER WYMAN.
3. Diagnostic and Prognostic Data in Nervous and Mental Diseases. By WILLIAM BROADDUS PRITCHARD.
4. Autoepidermic Skin-Grafting. By H. F. MCCHESNEY.
5. Report of an Operation for Carcinoma of the Cæcum and One of Carcinoma of the Transverse Colon. By C. G. DARLING and DEAN LOREE.

1. **Neurofibromatosis.**—Fraenkel and Ramsay Hunt emphasize the following points: (1) The possible diagnostic aid to be derived from the presence of skin fibromata or nævi in obscure lesions of the nervous system. (2) The choreiform muscular twitchings observed in the first case. A similar condition was noted by Virchow, and in a case recently reported by Dr. Thomas to the Johns Hopkins Medical Society (*Medical News,* January 24, 1903, p. 183). (3) The absence of characteristic root pain in a case of extra medullary compression of the cord. (4) The fact that neurofibromatosis is occasionally the cause of increased intravertebral or intracranial pressure. (5) The presence of neurofibromata without giving rise to neural symptoms. (6) The indications for surgical intervention are given not only by direct neural symptoms, but by the consideration of the fact that sometimes, although rarely, neurofibroma may assume a malignant character and undergo sarcomatous transformation. (7) That the absence of neural symptoms may be explained partly by the presence of an interfibrillary œdema and succulent myxomatous tissue within the hyperplastic fibrous tissue, thus diminishing and distributing the pressure; and partly by the absence of a tendency for this fibromatous tissue to contract, in contradistinction to inflammatory hyperplasia.

2. **The Marine Hospital Service.**—Published in full in *New York Medical Journal* for June 13th.

3. **Prognosis in Nervous Diseases.**—William Broaddus Pritchard holds that this is better than is generally supposed; that the number of recoveries is as great as in any other disease. Certain forms are, however, hopeless; notably, general paresis. Landry's palsy, and multiple sclerosis; even the most discouraging cases of myelitis, especially if traumatic, may turn out well, and many hemiplegias, especially when syphilitic, recover. A syphilitic ætiology favorably modifies the prognosis, save in tabes, general paresis, and epilepsy; and even in these, decided benefits may be secured. The recoveries in meningitis, excluding the tuberculous variety, reach fully 50 per cent. Among the insanities all the non-organic types are recoverable, and the majority yield excellent and prompt results. A vicious heredity always constitutes an adverse factor. In epilepsy, chorea, and the neuroses generally, the more anomalous the type, the more favorable the prognosis, is the rule. Ætiology is relatively unimportant in its bearing upon the prognosis in many of the neuroses. Removal of the cause, to be effective in promoting relief and convalescence, must be prompt—so prompt, indeed, as almost to precede diagnosis.

4. **Skin Grafting.**—McChesney reports a case of extensive burns in which the following method was used: "The area to be grafted was cleaned off with Thiersch's solution and then irrigated with normal salt solution. The granulating surface was then dried with gauze sponges. Where the granulations were firm and healthy, the graft was placed directly on them; over areas of exuberant growth they were cut down and gently compressed with dry sponges until all bleeding stopped. Some of the granulations were very soft and flabby. These were all scraped away until a firm fibrous foundation was reached. Then the thin blue line of epithelial cells that had started to creep in along the edge of the wound was dissected up, and small pieces about an eighth of an inch square were cut off and placed on the granulating surface already prepared. These were placed with the raw surface against the newly prepared surface, and covered with pieces of oiled silk protective about an inch square; other transplanted areas were protected with plain sterile gauze. The limb was then put up in a Volkmann splint to prevent contractures, and also to keep the parts quiet, so that the grafts would not be displaced." This method is said to be painless and effective.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

June 13, 1903.

1. The Modern Conception of Eczema. Chairman's Address before the Section on Cutaneous Medicine and Surgery. By J. A. FORDYCE.
2. Mercurial Treatment of Syphilis. A Further Contribution to the Study of Mercurial Injections. By M. L. HEIDINGSFELD.
3. Report of a Case of Fibroma Molluscum. By HENRY G. ANTHONY.
4. The Treatment of Leprosy. Discussion on the Paper read at New Orleans. By A. H. OHMANN-DUMESNIL.
5. Notes on the Treatment of Lichen Planus. By JOSEPH ZEISLER.
6. The Pathology of Summer Diarrhœas of Children. By G. W. BOOT.
7. Every-Day Problems in Infant Feeding. By HENRY ENOS TULEY.
8. Infant Feeding. By ALEXANDER MCALISTER.
9. Infant Digestive Disturbance. By A. C. COTTON.
10. Suggestions for Reducing the Prevalence of Summer Diarrhoea in Infants. By J. ROSS SNYDER.
11. Fruit Vessels, Mosquitoes and Yellow Fever. By EDMUND SOUCHON.
12. The Weight Wave of Menstruation. A Preliminary Note. By WILLIAM T. BELFIELD.

1. **Eczema.**—Fordyce regards as artificial the

distinction, in nomenclature, between those cases of superficial catarrhal inflammation of the skin in which the cause is known—dermatitis, and those in which it is not known—eczema. We have good reason for assuming that eczemas have a local cause. Still we cannot deny, since we cannot disprove, that eczema may be caused by some internal condition, such as infection from the gastrointestinal tract. The general conditions given as causes of eczema, however, act rather as contributing factors in preparing the skin for the action of microorganisms or their products. Even the symmetry of an eruption is not positive proof of the influence of the nervous system or of a constitutional cause. Variations in the type of disease are no doubt due to variations in the serotactic power of the irritant, etc., as well as to individual idiosyncrasy or constitutional fault. Fordyce admits, with Bracq and others, the existence of a skin lesion—lichen simplex, lichenification, or neurodermite—that is to be differentiated from lichen planus and from chronic eczema. It differs from the latter by its persistent dryness and freedom from vesicles, and its papules differ from those of lichen planus in absence of umbilication and of polygonal outline. Lichenification may develop about, and obscure, a patch of eczema, lichen planus, or other dermatosis. Many skin lesions formerly called idiopathic eczema are due to the local action of streptococci and staphylococi. Pemphigus vulgaris may yet be proved to be of streptococcic origin.

2. **Mercury in Syphilis.**—Heidingsfeld recommends, for routine treatment, courses of injections made deeply in the buttock, twice weekly, of an even mixture of equal parts of bidistilled (metallic) mercury and lanolin, gently heated to about 100° F. This is a modification of Lang's formula, which the author made because he regards albolene as more or less of an irritant, and believes that his semisolid mixture is less apt to produce emboli.

6. **Summer Diarrhœas.**—Boot divides the diarrhœas of children due to food infection into two main groups: (*a*) the result of preformed poisons; (*b*) the result of infection by bacteria in the food. Streptococci are only occasionally causative of diarrhœa in children. It is probable that the *Bacillus coli communis* is at times the infecting organism; but it is more probable that the bacillus of Shiga, of the same group, is the specific cause of most summer diarrhœas.

7. **Infant Feeding.**—Tuley emphasizes the importance of these problems in the supervision of breast feeding: 1. The increase of a too small supply. 2. Change in the character of the milk, (*a*) by decreasing the proteids (by pumping out the forepart, the infant nursing on the middle and last portions of the breast supply); (*b*) by increasing the fat, (*c*) by decreasing the fat. 3. To make and keep the nipples serviceable. 4. To supply an adjuvant food when the breast product is good but insufficient. 5. To continue nursing during a suppurative mastitis.

9. **Infant Digestion.**—Cotton holds that diarrhœas among breast fed infants are never essentially "summer diarrhœas," and are usually fairly tractable. He pleads for a closer study of the physiology and pathology of lactation.

10. **Summer Diarrhœa.**—Snyder urges the importance of inspecting dairies and of supervising the care of cow's milk within the home, and suggests that boards of health issue to the poor printed rules for the care of infants in summer.

11. **Mosquitoes and Yellow Fever.**—Souchon shows that the *Stegomyia fasciata* is an uncommon variety of mosquito on fruit vessels from parts quarantined against yellow fever and that this insect is not infected on board these ships; further that cases of yellow fever found on fruit vessels were infected ashore and that even on infected fruit vessels there is, for several reasons, improbability of the *Stegomyia fasciata* becoming infected before the ship reaches the quarantine station (where the insects are killed by the fumigating processes).

12. **Weight and Menstruation.**—Belfield has noted that in healthy young women there is a progressive increase of weight, sometimes amounting to two and one-half to five pounds, for several days preceding menstruation, followed by a rapid, and then more gradual, return to the intermenstrual weight, beginning with or just before the appearance of the flow. The increase and decrease in weight are due respectively to decrease and increase in excretion.

BERLINER KLINISCHE WOCHENSCHRIFT.

May 25, 1903. (40 Jahrgang No. 21.)

1. Diagnostics of Ailments and Functional Efficiency of the Kidneys. By H. Senator.
2. The Problem of an Antimorphine Serum. By J. Morgenroth.
3. Veronal, a New Soporific. By A. Lilienfeld.
4. Physical Exercise and Alcoholism. By Buenge.

1. **Kidney Diagnostics: Palpation, Inspection, Analysis.**—Senator, to ascertain pathological changes in the configuration of the kidneys, their movableness, translocation and the eventual formation of tumors, proposes palpation with the patient floating in the water of a tepid bath, a posture easily effected by resting the patient upon a canvas properly affixed to the tub. With regard to some neglected and little known methods of inspection, he emphatically recommends to look out for epigastric contraction, which—more particularly so if one-sided—is almost invariably a pathological concomitant of painful diseases of the kidneys. He depreciates the value of palpation *per rectum* and *per vaginam*, except in cases of dislocation, and deduces the almost complete worthlessness of percussion from the fact, that the acoustic effect remains usually unchanged after extirpation of one kidney. In enlarging upon the subject of analysis Senator corrects the erroneous conception of many practitioners, who assume, that polyuric secretions are positive indication of granular contracting kidneys, referring to new discoveries proving polyuria to be a symptom of a certain form of amyloid degeneration. He

quotes Traube in verification of the little known fact, that the urine of a patient suffering from contraction of the kidneys may remain lucid and clear, the stronger cyanosis notwithstanding. The albumosuric secretions of many healthy individuals in the army and navy he ascribes to overexertion, which finally leads in many cases to kidney diseases of a grave character.

2. **Hirschlaff's Antimorphine Serum.**—In defense of his sceptical attitude regarding the value of Hirschlaff's serum discovery, Morgenroth quotes Bashford's proof against Pohl of the non-existence of an immunizing specific against solanine, and Bashford's and Besredka's failures in quest of immunization against saponine, defining the status presens of medical science as ignorant of any antitoxic bodies produced by immunization with poisons of a known chemical constitution. Hirschlaff, on the strength of numerous and very carefully conducted experiments with rabbits as recipients of increased doses of morphine claims to have found a serum sufficiently powerful to protect these animals against the poisonous effect of the alkaloids. Hirschlaff's positive results were gained by experiments with mice. After a subcutaneous injection of 0.5—1.0 c.c. of his serum, the mice survived on the day following a simple or double lethal dose of morphine (0.01-0.02 gramme). Hirschlaff's tabular statements are shown to be of no conclusive strength by Morgenroth, whose tabulated experiments with mice yield contradicting results. Morgenroth ascribes Hirschlaff's seeming success to his underrating in fixing upon a standard for a certainly effective lethal dose.

3. **Fischer-Mehring's Veronal.**—Veronal, Emil Fischer's and von Mehring's newly discovered soporific, seems to be predestined, according to Lilienfeld, to supply the practitioner's demand, heretofore unsupplied, for a really perfect and universally applicable soporific. After reviewing the whole sleep-adducing material of the materia medica, with its manifold shortcomings, Lilienfeld gives a recital of favorable results gained in tentative practice jointly with Goldstein. Veronal is represented as a colorless and odorless, beautifully crystallizing body of mildly acrid taste, which melts at a temperature of 191° C. Lilienfeld and Goldstein began with doses of 1.0-1.5 gramme, but soon satisfied themselves of the hypnotic power of their remedy asserting itself after doses of 0.5 gramme, a quantum satis bringing about in the large majority of cases a sleep of 7 to 9 hours' duration. In sixty cases of insomnia caused by neurasthenia, hypochondria, hysterics, melancholic depression, incipient progressive paralysis, heart diseases, etc., 450 single doses of the new remedy proved it to be far superior in certainty and intensity of effect to any other known hypnotic and almost infallible in its power of universal application. Patients take kindly to veronal, when given in a cupful of hot milk or hot tea, the dose taking effect within a quarter of an hour. A dose of 0.5 gramme leaves no after-effects; 1 gramme and more, leaves the patient drowsy and somewhat tired the next day. Repeated doses establish no toleration, create no disturbances, and leave the urine free from albumin. A female morphiniste, during and after cure, took every evening 0.5 gramme for two months, and at the end of that period slept as well as after the first dose, while 1.5 gramme of trional left her absolutely sleepless. In contradistinction to all other hypnotics, veronal is a priceless ally for the physician, combating his arch enemy in the fight against the morphine habit—obdurate sleeplessness of the patient.

MUENCHENER MEDICINISCHE WOCHENSCHRIFT

April 14, 1903.

1. Contribution to the Knowledge of the Anæsthetic Action of Yohimbin (Spiegel). By A. Loewy and F. Müller.
2. Juvenile Tabes and Its Relations to Hereditary Syphilis. By P. Linser.
3. The Symptomatology and Treatment of Spastic Wry Neck (Torticollis Spastica). By K. Hasebroek.
4. The Treatment of Laryngeal Tuberculosis. By Kronenberg.
5. Gummata at the Point of Injection of Mercurial Preparations. By F. Juliusberg.
6. Serum Therapy Against Bubonic Plague. By G. Polverini.
7. A Case of Hysterical Fever. By Tillmann.
8. Abnormal Motility of the Gall Bladder Containing Stones. By V. Lieblein.
9. A Rare Case of Measles. By B. Machold.
10. The Withdrawal of Responsibility from Paranoiacs. By K. Heilbronner.
11. Medical Journalism in Germany in 1853, 1875, and 1901. By E. Roth.

1. **Yohimbin as an Anæsthetic.**—Abstracted in *New York Medical Journal*, June 6th, p. 1042.

2. **Juvenile Tabes and Hereditary Syphilis.**—Linser reports the case of a woman, thirty-four years of age, with neuropathic heredity who had hereditary syphilis. At the age of twenty-seven years the early stages of tabes were recognized, although from the age of twenty years she had had lancinating pains in the limbs. The commonest cause of tabes occurring in young persons is unquestionably hereditary syphilis.

3. **Spastic Wry Neck.**—Hasebroek believes, in view of the futility of surgical operations in many cases of spastic torticollis that it cannot be regarded as merely a manifestation of accessorius disease, but that other nerves must also be involved. He mentions some cases of this condition. The first, in a man aged forty years, had a spasm of the left sternocleidomastoid. Nevertheless, if he placed the arm and hand in the position of a military salute he could move the head freely. As soon as the arm was brought to its normal position the torticollis returned. There was a tender point just over the left shoulder blade in the region of the suprascapular nerve. Massage in this region relieved the spasm. In fact, the result in this case was so certain that it seemed almost as if one were pushing an electric button to bring the head into its normal position. The same effect may be produced over the point of emergence of the occipitalis major, the

auricularis major, the occipitalis minor, and the nerves of the cervical plexus. Thermal or electric stimulation had no effect. In the second case, also that of a man, torticollis developed after a severe attack of influenza. There was great tenderness in the triangle between the trapezius and the sternocleidomastoid muscles. Prolonged rubbing and pressing in this region caused the spasm to become very severe. A third case was one in which the spasm occurred in the splenius capitis. In this patient, as in the first, bringing the arm and hand into the position of salute caused immediate improvement in the spasm. This patient was cured by carrying a peculiar form of apparatus that forcibly maintained the head in the proper position. The amount of pressure could be easily regulated and was further modified by an elastic. The fourth case was also greatly improved by this method. The object of the method is to increase the strength of the antagonistic muscles. He believes that this method really involves a form of exercise therapeutics.

4. **Laryngeal Tuberculosis.**—Abstracted in *New York Medical Journal,* June 6th, p. 1042.

6. **Serumtherapy in Plague.**—Polverini discusses the results of some experiments upon serum therapy to prevent plague. A good deal depends upon the method of infection; animals infected with cultures derived from pneumonic foci usually die very quickly, because these cultures are exceptionally virulent. The plague bacilli differ considerably according to the source from which they are obtained. Therefore, Polverini's cultures were always obtained from human beings suffering from the septicæmic form. More than 1,000 cases of plague were treated with this serum and the results were favorable. He does not believe that experiments with serum upon various animals will ever lead to results of practical value, because the serum acts so differently upon different species.

7. **Hysterical Fever.**—Tillmann reports the case of a marine who developed some of the symptoms of pleurisy with exacerbations of fever. During these exacerbations the man was not particularly sick. The patient developed some psychical manifestations and there were sensory disturbances. The maximum temperature was 45° C. (113° F.). A diagnosis of hysteria was made, and the patient recovered promptly under appropriate treatment. The thermometers were carefully tested, and the measurements were made by practised persons.

8. **Motility of Gall Bladder.**—Lieblein reports the case of a woman, forty-seven years of age, who developed an abdominal tumor. This was about the size of a child's fist, and lay to the right and above the umbilicus. It was partly hard and partly soft, freely movable, and otherwise the patient was normal. A diagnosis of carcinoma of an abnormally movable right kidney was made, and operation performed. The tumor was found to be a dilated gall bladder with a stone in the fundus. This stone was removed, resection performed, and the patient made a satisfactory recovery.

9. **Measles.**—Machold reports the case of a girl, eight years of age, who had had a typical attack of measles from which she apparently had recovered. She then developed a bluish red eruption over the whole body, the different parts being about the size of a one mark piece. There was no temperature; the spleen was slightly enlarged, and there was slight bronchitis. The eruption gradually subsided.

10. **The Responsibleness of Paranoiacs.**—Heilbronner, in continuation of his article, discusses the material as well as the psychical considerations that lead to the withdrawal of social and business privileges from paranoiacs. He admits that these considerations are largely theoretical, and should be limited to cases of genuine paranoia.

LA PRESSE MEDICALE

May 30, 1903, and *June 3, 1903.*

1. Vesical Infections and Bacillus Pyocyaneus. By H. BARTH and G. MICHAUX.
2. Salies-de-Béarn. Women's Division. By RENÉ MATTON.
3. Diagnosis of Meningeal Hæmorrhage. By FERNAND WIDAL.
4. A Pocket Case for Catheterization, etc. By LÉON IMBERT.

1. **Vesical Infections.**—Barth and Michaux report a case of what they call a rare form of cystitis, seen at the Necker Hospital. January 2nd, a woman aged forty-nine years, suffering from "grippe," entered the hospital, and for eight days, was a prey to such violent headache and [spinal?] curvature as to be unable to stand erect. Temperature, 39.5° C., evenings. Catheterism necessary to draw urine. The following day urination freer, with mitigation of other symptoms. Three days later, temperature 37° C., pulse 70, no albumin. Convalescence progressed till January 14th, when symptoms of vesical irritation developed, albumin appeared in the urine, there were frequent micturition and pain after the act. Microscopically, there were numerous leucocytes and bacteria. Milk diet was ordered and 2 grammes of urotropin daily. Urine was collected antiseptically and placed in gelose and bouillon. In twenty-four hours, the latter was clouded and of a greenish, fluorescent tint, while on the surface a greyish white veil formed which thickened later on. Spread upon a glass and colored, a bacillus developed not susceptible to Gram. *No other bacillus* was present. A colony was established, partly on gelatin, which liquefied in from four to five days, partly on peptonized gelose, 2-100, and treated with glycerin 5-100, after the method of Gessard, and finally on bouillon. In this last, the addition of ammonia and chloroform separated the fluorescent, green pigment, forming the superior layer of pyocyanin coloring chloroform blue, which was extracted in a crystalline form. The diagnosis of *Bacillus pyocyaneus* was therefore certain.

On the 17th, further tests confirmed the presence of *Bacillus pyocyaneus.* On the 22nd, under the milk diet and the urotropin, every symptom of cystitis had disappeared. On the 23rd, however, to the authors' surprise, the pyocyaneus was still present, and it continued present until April 16th, although the patient had left the hospital on February 1st.

The authors consider that the *Bacillus pyocyaneus* may enter the bladder from the kidney, after absorption from the general circulation in cases of septicæmia and, as it is likely to frequent the inguinal and rectal regions, is liable to be conveyed into the bladder during catheterization. This is borne out by the researches of Motz, Maxwell, Clarke and Faltin. It may exist alone or along with *Bacillus coli communis,* streptococcus, and staphylococcus aureus, Koch's bacillus and the gonococcus. Internal treatment with urotropin and salol, gives negative results. Washing out the bladder with potassium permanganate, protargol, or silver nitrate does not drive away the bacillus, but it certainly cures the cystitis and seems to render the bacillus an inert saphrophyte.

3. **Meningeal Hæmorrhage.**—Widal states that this disease, formerly difficult to diagnosticate, can now be positively recognized by Kernig's sign; also that when the lumbar puncture shows blood, there is no longer any doubt. He cites a case of a woman aged thirty-nine years, who, some hours after a violent altercation with her son, was seized with intense headache, and next day with vomiting and obstinate constipation. Five days later, when examined by the author, she was semiconscious with a temperature between 36.2° C. and 37.2° C.; pulse 72; respiration regular with occasional deeper inspiration. The urine contained two grammes of albumin to the litre. There were photophobia, slight strabismus of the right eye with ptosis of the left; plantar reflex present. The neck was stiff and on attempting to seat the patient, the legs were strongly contracted on the thighs. This is the sign of Kernig. The author proceeds to differentiate the various forms of meningitis; tuberculous, possible in the case under discussion when examination was made on the fifth day; syphilitic, which he states is best diagnosticated by the iodides, which should always be administered; hysterical, excluded by the sign of Kernig, which also served to render the diagnosis of the present case positive as one of hæmorrhagic meningitis. The lumbar puncture, showing blood in the cerebrospinal fluid, "inscribed," as the author says, "the diagnosis in the bottom of the tube in which it was collected." Subsequently in this case, the temperature varied from 37.4° C. to 38.7° C.; the pulse from 88 to 100, rising but once to 104. On the ninth day, mental confusion was manifest. Headache and stiffness of the neck were diminished by the spinal puncture. Kernig's sign persisted till the last, and the autopsy confirmed the diagnosis of hæmorrhagic meningitis. The hæmorrhage was found under the right frontal lobe between the brain and the pia mater. It was the size of a bean pod, and came from an aneurysmal dilatation. In making the lumbar puncture, if the blood coagulates in the tube, it has come from the puncture itself; if it does not clot, it was already present in the cerebrospinal fluid.

4. **A Pocket Urinary Case.**—Imbert describes a case suited to the needs of the general practitioner. While much less complete than those of the specialist, it is easily portable, and its cost is moderate. It contains four ball pointed bougies, Nos. 12, 14, 16, and 18; two tubes for sterilizing; five or six filiform bougies, the numbers rising to four; two Nélaton rubber catheters, to overcome an enlarged prostate, Nos. 16 and 18; two olive pointed bougies; three prostatic catheters, Nos. 14, 16, and 18; two stylets; a trocar, a bottle of vaseline and a syringe, preferably Guyon's.

RIFORMA MEDICA

May 6, 1903.

1. On Hyperchloruria in Pneumonia and on the Presence of Organic Chlorine in the Tissues. By A. Santini.
2. On the Anatomical Changes Produced by Lead Poisoning. By G. Fasoli.
3. On Two Cases of Psychosis Due to Typhoid Fever. By M. Foa.
4. A Gunshot Wound of the Vertebral Column followed by Irritative Phenomena in the Spinal Roots. Operation. Recovery. By E. Bardellini.
5. On Hypertrophic Tuberculosis of the Colon. By P. Pennato.

2. **The Anatomical Changes in Lead Poisoning.**—Fasoli found the following lesions in experimental lead poisoning: (1) Circulatory changes, which were manifested by stasis, sometimes very marked, followed by cyanotic atrophy (in the spleen) and hæmorrhages (in the intestines). (2) Profound cellular changes, such as swelling and degeneration, cloudy swelling, fatty degeneration (especially in the kidneys and liver), and more or less advanced disintegration of the nuclei (liver). (3) Changes in the red cells, which can only be the cause of the large amount of pigment found in the spleen, resulting from a destruction of the red cells. In one case there was in addition an extensive ischæmic infarct, which was symmetrical and bilateral in one rabbit, and in another case there was complete fatty degeneration of the tunica media of the perilobular branches of the hepatic artery. These researches seem to show conclusively that lead produces profound alterations in the structure of the cells of the internal organs, either in their protoplasm, or in their nucleus, or in both, and that these alterations resemble those produced by phosphorus and arsenic, the full significance of which is as yet obscure to us. The author thinks, in conclusion, that various species of animals, although related to one another, react differently to the poisonous effects of lead. This explains why the researches heretofore published do not throw any clear light upon the characteristic alterations in the internal organs caused by lead poisoning. The different methods of introduction and other conditions of experimentations give various results, which are often contradictory.

3. **Psychosis of Typhoid Fever.**—Foa reports two cases of typhoid fever in which there were interesting psychical symptoms. The first patient was a girl, aged nine years, who had insanity in her fam-

ily history, and who entered the hospital with an attack of typhoid fever with a mild and atypical clinical course. During the entire febrile period of the attack this girl manifested the symptoms of melancholia of the anxious type. The somatic symptoms of typhoid fever were absent, excepting a febrile movement and an enlarged spleen, but the Widal reaction was positive. This reaction, the author says, was all that prevented him from sending the patient to an insane asylum, as he realized that the psychosis was due to the typhoid fever. The psychical signs disappeared gradually, with the sinking of the temperature to the normal point. In the second case the patient was a man, aged twenty-six years, whose mother was epileptic, and whose father was somewhat mentally deficient. He entered with a rather faintly marked attack of typhoid fever, but with such marked mental symptoms that he was thought a patient for the psychiatric department. In this case the psychosis took the form of typical hypochondria with suicidal mania. It happens sometimes that in such a patient the presence of typhoid is not suspected, as the signs of this disease are not looked for, and the slight fever is thought to be due to the mental state, while the Widal reaction is not tested. According to Paris, a person with mental disease exhibits the psychical symptoms of it more markedly in the presence of an intercurrent infection, and if a patient has only delirium in typhoid fever he is in all probability not an insane person, but either normal or slightly degenerate. The confinement of delirious typhoid patients in asylums is a grave error, which must be guarded against, as even the transportation to the asylum may prove fatal. The Widal test, according to the author, is of great value in cases of doubt, and its presence is sufficient to prevent the physician from recommending confinement in an asylum.

4. **Gunshot Wound of Spine.**—Bardellini reports the case of a young man, aged sixteen years, who had been shot with a revolver, calibre 9, in the mouth; the bullet having broken some teeth, furrowed along the tongue and lodged in the spinal column. The patient was brought in with the symptoms of cerebral concussion, but during the next few days he developed the following signs: He could not rotate, extend, or flex the head, on account of great pain at every such attempt. When he flexed his head he felt a paræsthesia over the whole body, as though an electric current was passing through him, especially through his lower limbs. There was a marked tenderness on pressure over the right carotid region corresponding to the upper margin of the thyreoid cartilage. Skiagraphy showed that the bullet was imbedded in the space between the fourth and fifth cervical vertebræ, about a centimetre in front and to the right of the median line of the transverse processes. Twenty-three days after the injury, the symptoms not having disappeared, it was decided to remove the bullet. Accordingly, under Schleich anæsthesia, an incision was made, eight centimetres long, extending along the sternocleidomastoid, and one centimetre away from the angle of the jaw. The wall of the pharynx having been exposed, the path of the projectile upon this structure was made out, incised, and the bullet removed with Kocher's forceps. The pharynx was sutured with catgut, and the remainder of the wound in several layers with silk. On the third day the wound discharged a fœtid material, owing to the fact that the suture of the pharynx had given way and food was passing into the tissues of the neck. A similar experience is recorded by the author in a case of external œsophagotomy for a foreign body. It is best, therefore, as some surgeons advise, to tampon wounds of the pharynx after such operations. In the present case, however, the complication did not give much trouble, and the patient made a good recovery. The author accounts for the sensation of an electric shock on flexing the head in this case by assuming that the bullet lacerated the intervertebral ligaments between the fourth and fifth vertebræ, so that when the head was flexed these vertebræ were displaced and there followed a compression of the spinal nerve roots.

ROUSSKY VRATCH.

March 15, 1903. (Vol. II, No. 11.)

1. The Importance of Investigations for the Proper Use and Protection of the Mineral Waters in Russia. By S. I. Zalesky.
2. Clinical Observations on Amyloid Kidneys. By A. P. Favitzky.
3. A Case of Trepanation of the Skull on Account of a Subdural Traumatic Hæmorrhage. By B. K. Finkelstein.
4. Ehrlich's (German) Method of Determining the Strength of Antidiphtheritic Serum, and its Theoretical Basis. By S. V. Korschun.
5. The Means of Preventing the Spread of Syphilis. By M. I. Pokrovskaja.

3. **Trephining for Subdural Hæmorrhage.** By B. K. Finkelstein.—Abstracted in *New York Medical Journal* for May 16th.

4. **Determination of Strength of Antidiphtheritic Serum.**—Korschun remarks that if we take into consideration the great variability and multiplicity of the products of a single organic cell, such as the alkaloids of quinine, for instance, we need not wonder at the complexity in the composition of toxines. The difficulty in standardizing the toxines and antitoxines lies in the fact that the toxines contain also toxoids which possess a strong affinity for the antitoxine and yet have no toxic properties. In Behring's method of determining the strength of antitoxine, the error occasioned by the disregard of the toxoids is introduced. Ehrlich's method is therefore much more accurate. The author then explains the theoretical foundations of this method, and describes the mode of application, concluding with the following recommendations: 1. In measuring the toxine, it is necessary to employ high dilutions so as to minimize the error. 2. The consistency of the standard serum is very thick, owing to the admixture of glycerin. It is therefore necessary to use small pipettes accurately graduated in 1 cubic centimetre. The latter, when filled, should be carefully wiped on the outside, and when the contents are discharged, washed in the diluting fluid.

3. The mixture of toxine and antitoxine should be allowed to stand at room temperature for fifteen minutes, to allow the chemical union between the two to take place. It is then poured into a hypodermic syringe, the needle of which has been previously inserted under the skin of the animal. The injection is followed by another injection of 1 cubic centimetre of salt solution to wash out the syringe. 4. For each quantity of toxine in which the quantity S is determined, at least two guinea pigs should be employed. With these precautions observed, Ehrlich's method is extremely accurate, giving an error of ½ per cent.; it is also very simple.

ROUSSKY VRATCH.

April 19, 1903.

1. The Advances of Neurology and their Significance in Various Branches of Medical Knowledge. By V. E. Larionoff.
2. Is the Nervous or Maculoanæsthetic Form of Leprosy Contagious? By D. F. Reshetillo.
3. On Vulvovaginitis in Children. By V. J. Doukelsky.
4. The Fundamental Properties of Pancreatic Juice. By L. B. Popelsky.
5. The Best Methods of Preserving Anatomical Preparations. By L. L. Heidenreich.

2. **Maculoanæsthetic Leprosy.** — Reshetillo reviews the experimental work recently done in the question of the infectiousness of the various forms of leprosy, and concludes that, contrary to the opinion expressed by Dr. Dehio in a recent article (*Roussky Vratch,* No. 39, 1902), the maculoanæsthetic form is infectious in character. Dehio said that the new regulations concerning the management of lepers in Russia recognize the fact that all the forms of the disease were not infectious. He added that Hansen and Looft were unable to find any lepra bacilli in the secretions of persons with the anæsthetic type and that, therefore, this type was non-infectious.

The present author cites the researches of Glück and others, who found the lepra bacillus in the nasal discharges of persons with the anæsthetic form of leprosy, and, as we do not know anything about the non-virulence of the bacilli in this form, no conclusion can be drawn as to the non-infectious character of the anæsthetic type. Extensive epidemiological observations in India, in Colombia, and other countries, show that the infectious power of the anæsthetic type is not only considerable, but is even greater than that of the tubercular type at times. In the tubercular type the infectiousness is greatest when the tubercles break down and ulcerate, but in the anæsthetic type there is just as great danger of infection when there are vesicles and pustules formed. The fact that popular belief on the Island of Esel does not include the anæsthetic type among the infectious forms of leprosy does not prove anything. It is a significant fact that in the same family some members become affected with the tubercular while others develop the anæsthetic type. The dictum of Dehio, that the anæsthetic type is not infectious, should be changed to read that not all the types of leprosy show the same degree of infectiousness at all times.

5. **Preserving Anatomical Preparations.** By L. L. Heidenreich.—Abstracted in *New York Medical Journal,* for June 13th, page 1089.

ROUSSKY ARCHIEV PATOLOGYI, KLINITCHESKOI MEDITSINY I BAKTERIOLOGYI.*

December 31, 1902.

1. On Cryoscopy in the Examination of Urine in Clinical Investigations, By S. M. Boukinitch and S. M. Melkikh.
2. The Casuistics of Pathological Anatomy, By A. I. Abrikossoff.
3. The Anatomy and Microphysiology of Brunner's Glands. By A. A. Bogomolietz.
4. The Pathology and Treatment of Asthma, By M. Sihle.
5. On the Pathology of Purulent Calculous Angeiocholitis, By Th. Janovsky.
6. The Changes in the Blood in Articular Rheumatism, By K. I. Korolovsky.
7. The Present Status of Serum Therapy in Tuberculosis, By O. I. Braunstein and L. J. Fraenkel.

1. **Cryoscopy of Urine.**—Boukinitsch and Melkikh call attention to the fact that in the observations on the freezing point of the urine in diseases of the heart and kidneys which have been published heretofore, no consideration is given to the alimentation of the patients. The present authors, as the result of certain observations made in healthy persons, found that hunger, a milk diet, the administration of a large amount of sodium chloride, etc., might create conditions in which the freezing-point of the urine was materially modified. Under these circumstances the freezing-point of urine may, in fact, be identical with that observed in diseases of the heart and kidneys, as recorded by Koranyi, Claude, Balthazard, and others. The authors therefore conclude that cryoscopy alone, unaccompanied by a study of the diet of the patient, may give misleading results as regards the state of the heart and kidneys.

4. **Asthma.**—Sihle, of Odessa, adds a fourth cause to the three generally admitted as ætiologic factors of asthma (spasm of the bronchi, a specific catarrh of nervous origin, and congestion of the mucosa), namely, a general vasomotor insufficiency manifested by a subnormal pressure in the blood vessels. The three causes cited above have been for a long time regarded as the sources of the neurosis known as asthma. For some time the author had noticed a venous stasis in the livers of his asthmatic patients, in the intervals between attacks, as attested by percussion (Henschen, Buch). This stasis was not due to a weak heart, as the asthmatics were able to walk with ease and to mount stairs without effort, when not suffering from an attack of their trouble. [Cases of cardiac asthma were not included in the group observed.] The normal state of the heart and the absence of a reduplication of

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* This is the last issue of the *Archiev.* Its publication has been discontinued.

the second sound of the pulmonary orifice showed that the heart muscle did not have anything to do with the lowering of pressure spoken of above. And yet, these patients showed, with Gaertner's tonometer, a marked diminution in the blood pressure, as well as hepatic stasis. These phenomena can therefore be accounted for only by a vasomotor disturbance. The pathological picture of asthma therefore is composed: Of a tendency to spasm in the bronchi (hypertonic condition of the bronchial muscles); of a vasomotor insufficiency of the bronchial vessels; of a hyperæmia of the mucosa of the respiratory tract, and of an excessive secretion of mucus therefrom. The picture presented by each case varies according to the predominance of one or another of these factors.

Inasmuch as asthma is nothing but a reflex neurosis, it is interesting to follow the path of the reflexes which constitute its symptoms. Although this path is as yet imperfectly known, its centrifugal portion is formed by the motor portion of the vagus nerve for the bronchial muscles, by the secretory portion of the vagus for the mucosa of the respiratory tract, and by the vasomotor nerves. The centripetal portion is formed of the olfactory nerves, the sensory fibres or endings of the trigeminus, the sensory fibres of the pulmonary portion of the vagus, the gastric portion of the vagus, the centripetal ramifications of the uterine nerves, etc. There is, however, another very common form of asthma—the neurasthenic. In this the psychical element plays a prominent rôle, and in the treatment of asthma the psychical side should never be neglected. Measures applied locally in the nose can be hoped to give relief only in a very limited set of cases. The general treatment should be directed toward strengthening the nervous system and should therefore include hydrotherapeutic measures. The use of digitalis combined with iodine and the less violent narcotics is very important, and these combinations give such good results that the author seldom employs morphine.

7. **Serum Therapy in Tuberculosis.**—Barunstein and Fraenkel, of Moscow, trace the historical development of specific treatment of tuberculosis since 1886, when Cantani first attempted to inject the *Bacillus thermo* as an antagonist to the tubercle bacillus, to the present day. Their conclusion, based on the consideration of a large number of reports from all parts of the world, is that serum therapy has not by any means spoken its "last word" in tuberculosis, and that the future will, in all probability, bring forth the ideal antituberculous serum. As yet, the evolution of the methods of serum and tuberculin treatment has progressed but slowly. The difficulty is, evidently, to obtain toxines of tuberculosis which would compare in virulence to those which we are able to get with comparative ease in diphtheria and tetanus. This, according to the foremost authorities (Behring, Babes, Landouzy, etc.), is the reason why our tuberculosis serums are not endowed with sufficient antitoxic properties. Even in Maragliano's method, which is, after all, the one that has been most completely worked out, the number of cures, while considerable, leaves a great deal to be desired. Whether serum therapy has its *raison d'être* in tuberculosis, is a question which has not been solved. It is questionable whether the method of serum therapy or the expedient of active immunization is the path which will lead to the solution of the problem of the specific treatment of tuberculosis.

ANNALS OF SURGERY.

May, 1903.

1. The Surgical Treatment of Facial Paralysis by Nerve Anastomosis. By Harvey Cushing.
2. Intracranial Neurectomy. By Howard D. Collins.
3. Hepatic Syphilis from a Surgical Standpoint. By Charles G. Cumston.

1. **Facial Paralysis.**—Cushing points out that paralysis, whether it takes its origin from disease or injury of the facial nerve, causes distressing deformity. Experiment has shown that when a peripheral mixed nerve has been divided, its distal severed end can be transplanted to the trunk of a neighboring nerve of like nature with restoration of function. In man there has been an occasional recovery after anastomosis between a paralyzed and an intact nerve, that is, cortical impulses traveling over new paths may reach a group of muscles whose proper connections have been severed, normal coordinated motion and sensation resulting.

In 1898, Faure, in a patient paralyzed eighteen months from traumatic destruction of the facial, anastomosed the peripheral end of the facial, divided near the stylomastoid foramen, with the portion of the spinal accessory which supplies the trapezius. The result was unfavorable. In the same year, Manasse experimented with five animals, dividing the facial at its exit from the skull and uniting its distal end to the side of the spinal accessory. Two of the cases were failures, the divided portions of the nerve becoming reunited, while in the others the result was satisfactory anatomically and physiologically. Similar work on three dogs was done by Barrago-Ciarella with successful physiological result, but the work was unattended by post mortem and histological studies, and hence is inconclusive. Kennedy, in 1899, divided the paralyzed facial in a human being and united it with the spinal accessory, the result being almost complete restoration of function of the muscles controlled by both nerves. The spinal accessory in this case ultimately served as the sole path for impulses to both motor fields.

In 1902, the author operated upon a man aged thirty years, with traumatic facial paralysis, the proximal stem of the divided spinal accessory being united to the distal end of the paralyzed facial. In four months control of the muscles returned; and in six months control was nearly normal.

As to the course of the nerve impulses after an anastomosis of this character the author suggests two hypotheses.

a. The cortical centres concerned in shoulder movements (trapezius) and rotation of the head (sternocleidomastoid) may be educated by training to coordinate the impulses which have been sidetracked into the motor area of the facial nerve, so as ultimately to lead to expressional movement.

b. The cortical centres originally presiding over movements of the face continue to play a part in the coordinate action of these muscles, possibly influencing the higher neurones of the spinal accessory through the intermediation of connecting tracts in the cortex.

2. **Intracranial Neurectomy.**—Collins cites the cases collected by Tiffany, in which are several instances of permanent or temporary injury from the operation itself. The author reports a case in which also injury was sustained by the operation. The patient was fifty-four years of age and had suffered with neuralgia of the second division of the right trigeminus for eight years. Medical treatment had been of little service, and when seen by the author, his paroxysms lasted twenty seconds and recurred every four minutes, with occasional intervals of rest for a few hours. The author decided to remove the right Gasserian ganglion. The middle fossa of the cranium was found to be very deep, and in exposing the foramina ovale and rotundum to reach the exit of the second and third divisions of the trigeminus the brain was crowded by the retractor toward the median line. Both nerves were divided and the operator was then compelled by hæmorrhage to drag down their stumps and with them as much of the ganglion as he could.

On the second day there was paralysis of the right upper eyelid and of the muscles supplied by the third, fourth, and sixth cranial nerves. There was also partial paralysis of the left upper extremity. When the patient got out of bed on the tenth day the left leg was also found partially paralyzed. In five weeks the paralysis of the right eyelid began to improve, and in ten weeks it had disappeared. In four months, the patient was well and free from pain, but not so strong as before the operation; his memory, also, had become defective. There was anæsthesia along the course of the nerves which had been removed. Three months later he was entirely well.

The case is narrated to show that one may look for ultimate recovery from such postoperative paralyses if one has not divided any structures except those which are intentionally divided.

3. **Hepatic Syphilis.**—In the first case of hepatic syphilis operated on by Cumston, the patient was forty-one years of age and had shown evidences of liver disease for three months. The diagnosis was carcinoma of the liver or gall bladder. When the liver was exposed by incision, two gummatous nodules as large as English walnuts were found on the anterior surface of the right lobe. They were incised, their cheesy contents removed, and the resulting cavities packed with gauze, which was removed in four days. Recovery followed and after two years of subsequent treatment with potassium iodide, the liver resumed its normal size.

The clinical symptoms of hepatic syphilis are reviewed by the author, but these are well known.

The enlargement of the liver and of the abdomen are points of surgical interest; palpation and percussion will usually determine the limits of the organ, and gumma may be suspected from the previous history. Gummatous lesions seldom come until five years after the original infection, and it may be fifteen or twenty; they vary in size from a pea to a walnut.

Two additional cases are reported in which operation for syphilis of the liver was performed and small tumors removed. The author quotes Ségond as opposed to the surgical treatment of hepatic syphilis. His own preference would be to use the proper medical treatment after the diagnosis had been made, for a sufficient length of time; if this failed to relieve the hardened condition of the organ it would be probably because the gummata were so old and the tissues so changed that other treatment was indicated. In such cases the question of surgical intervention is pertinent, and it may be possible by such intervention to bring decided relief to the patient.

MISCELLANEOUS.

Absence of the Visual System in an Adult.—W. G. Spiller (*Brain,* 1902, page 631: *Montreal Medical Journal,* April, 1903) describes the case of a helpless idiot regarded as a case of cerebral spastic paraplegia of the lower limbs with absence of the eyeballs. The palpebral fissures were very small and the orbits contained only a small amount of fibrous tissue. The optic foramina were nonexistent, merely slight depressions occupying their site in the skull. There was no sign of optic nerves, chiasm, or tracts, nor was there any external geniculate body on either side. The thalamus had nothing resembling an optic tract passing from it, and the posterior part of each thalamus was rounded and larger possibly than one would expect to find in such a case of agenesis of the visual system.

The following are Spiller's conclusions: (1) The chief primary optic centre is in the external geniculate body. (2) The prelocinas is also an important primary optic centre. (3) The anterior canaliculus of the quadrigeminal body in man bears an important relation to vision. (4) The subthalmic body, the habenula, and the geniculate body are probably not part of the visual system. (5) The cortex of the calcarine fissure may contain nearly the normal number of cell bodies, even though the visual system be absent. (6) The nerves of the ocular muscles and their nuclei may be developed, even though the visual system may be absent. (7) Congenital spastic paraplegia may be the result of deficient formation as regards number or size of the neurones of the central motor system, even though such a deficiency may be difficult to detect with the microscope.

Immunization of Guinea Pigs Against Tuberculosis.— Dr. E. Levy (*Centralblatt für Bakteriologie, Parasitenkunde und Infektionskrankheiten,* April 22d) injected subcutaneously into guinea pigs an emulsion of tubercle bacilli, followed by progressively stronger emulsions; in some of the animals the injections were made intraperitoneally. Later, injections of a still stronger emulsion were made in the axilla, which produced abscesses which healed in about four weeks. The control animals showed advanced tuberculosis of the lungs, liver and spleen, while the immunized pigs showed no trace of tuberculosis.

Proceedings of Societies.

PHILADELPHIA ACADEMY OF SURGERY.

Meeting of May 11, 1903.

The President, Dr. Richard H. Harte, in the chair.

A Review of 303 Operations upon the Stomach and First Portion of the Duodenum.—Dr. William J. Mayo, of Rochester, Minn., read a paper thus entitled. Two hundred and eighty-six of the case histories were taken from the records of St. Mary's Hospital, and seventeen from those of the Minnesota State Hospital for the Insane, at Rochester and St. Peter. The average age of the patients was forty-two years, 42 per cent. being males, and 58 per cent. females. There were twenty-six cases of duodenal ulcer, with two deaths. Lesions in the first portion of the duodenum could not be easily distinguished from lesions in the stomach which were due to the same causes. He divided lesions in the first portion of the duodenum into two groups, first, those caused by ulcer, and, second, those associated with the gall bladder disease. Of the ulcers limited to the duodenum, he reported one acute perforating, two chronic perforating, five active, and three with cicatricial contraction and obstructive symptoms. Two deaths occurred, one from pneumonia and the other from exhaustion following gastroenterostomy. Several of the cases could not be distinguished from gall stones until the operation, which was begun for that purpose, and that condition was frequently present. In three cases the gall bladder was completely separated functionally from the bile tract; in four cases there were crippling adhesions to the gall bladder, but without stone or cholecystitis, requiring dissection to loosen. The distinguishing features in these cases were good appetite, delayed pain, and general absence of vomiting, the latter only in one case, and in that on only one occasion was there hæmatemesis. The author expressed the opinion that surgical disease of the duodenum was much more frequent than had been supposed. Drainage to relieve the excessive amount of secretion and thus produce healing of the ulcer was of great importance.

There were 109 cases of cancer of the stomach, with seventeen deaths, or 15.6 per cent. Late diagnosis and cachexia made the report of this group rather discouraging. Most of the operations were of a palliative character. Early exploratory incision in suspected cases was recommended, and all the vascular and lymphatic connections with the diseased area should be removed. He then gave a full description of his method of operating. The period without recurrence after the operation had varied, one case having gone two years and an other three years and six months. He then discussed the three chief methods of improving stomach drainage, *i. e.*, pyloroplasty, gastroenterostomy, and gastroduodenostomy.

Dr. Albert Vander Veer, of Albany, N. Y., referred to the difficulty of diagnosticating conditions in the lower third of the stomach and the upper third of the duodenum, referring to two cases in which he had thought that he was going to deal with a case of gastric ulcer, but an operation proved it to be duodenal ulcer. In cases where all the symptoms seemed to point very strongly to an ulcer in the stomach and none was revealed upon opening the organ, he believed it could sometimes be discovered by lifting out the organ and holding it up to the light. The difficulty of distinguishing between carcinoma and ulcer when the growth occurred in the posterior wall of the stomach was commented upon and gastroenterostomy was thought to be the preferable operation for such conditions. He felt that many of the cases were left too long solely under the treatment of the medical man, and if the clinical history and examination of the patient did not reveal clearly the conditions presented, he recommended an exploratory operation. If possible the complete operation should be done, but if the condition of the patient was such as to contraindicate this, much relief could be obtained by a gastroenterostomy. In regard to shortening of the ligaments for the treatment of gastroptosis, while he had had very little experience with this method, he felt that better results would be obtained by gastroenterostomy with the establishment of good drainage. In regard to the pyloroplastic operation, he stated that he had in some instances got very good results and in other instances the symptoms had recurred, which he thought was probably due to the fact that the operation was too high up, and attributed Dr. Finney's success with this method to the fact that he made the outlet lower down.

Mr. B. G. A. Moynihan, of Leeds, England, felt that the operation of pyloroplasty could be practically abandoned. He had done the operation three times, and in only one of the three cases had it proved satisfactory. In the third case a gastroenterostomy was performed three or four months after the original operation. He did not feel that the operation was in any particular as satisfactory as the operation of gastroenterostomy, stating that he had operated in seventy-five cases by the latter method, with only one death. He stated that he had not used the Murphy button in the last sixty-five cases, as he believed the simple suture was preferable, but stated that in the employment of the Murphy button in the first of his cases he had noticed that it destroyed a considerable portion of the mucous membrane around the union, which he considered of very great importance. By the method which he had employed the section of the stomach and the section of the jejunum where the anastomosis was to be made were each grasped in a forceps and brought outside of the abdomen, and the continuous suture applied. In regard to malignant disease of the stomach, he believed that the infection took place principally through the lymphatic system, and in the operation therefor he believed that first the greater curvature and then the lesser curvature should be removed. In regard to duodenal ulcer, he believed that there were but very few cases in which this was a primary condition, feeling that in the majority of cases there had been a precedent gastric ulcer. Gastric ulcer was so frequently multiple that he did not believe excision of it to be practicable, as future trouble might result from a remaining undiscovered ulcer, and searching for the ulcer materially complicated the operation of gastroenterostomy.

Dr. J. B. Murphy, of Chicago, referred to the fact that the great majority of all cases of carcinoma occurred in the pyloric end of the stomach, and as the first set of glands involved were the lymphatic glands, any operation which was expected to produce permanent results must look to the removal of these glands, early operation being imperative. He further referred to the fact that about 10 per cent. of all cases of gastric carcinoma occurred in the cardiac end of the stomach and were practically unamenable to treatment. He referred to the fact that the surgeon saw the cases of gastric disease in the following numerical order: 1, Gastric carcinoma. 2, Gastric ulcer. 3, Pyloric stenosis. 4, Pyloric retention. As the gastric carcinoma was usually a sequence of the other conditions, he felt that, in order to obtain the best results by operative treatment, the order in which these cases were seen should be the reverse. He belived that in order for the operation of pyloroectomy to attain the best possible results, it was necessary that it should be done early. He referred to the fact that the cases of gastroptosis were treated erroneously by the medical man by washing out the stomach and reducing the amount of food, on the theory that the condition was due to a weakening of the wall of the stomach, whereas, as had been definitely demonstrated by Dr. Mayo, it was due to a mechanical condition at the pylorus. He felt that the all-important factor in the operation was to secure permanent drainage of the most dependent portion of the stomach, and the only operation which had been used a sufficient length of time to justify the statement that it was the best, he felt, was gastroenterostomy. He felt that if pyloroplasty was going to be of benefit to the patients it must be done early, in order to avoid ulceration and changes in the gastric secretions which were to lead on to malignant disease. He also expressed the opinion that so soon as it became demonstrated to the physician that surgical operations were safe and afforded great relief, the cases would be sent to the surgeon much earlier.

Dr. J. M. T. Finney, of Baltimore, confined his remarks to the consideration of the question of pyloric stenosis of benign origin, and believed that the main question was that of thorough drainage. and any method that would produce this result he felt would be satisfactory. He referred to the fact that the advocates of gastroenterostomy were far in excess of those who recommended pyloroplasty at the present time, which he believed to be due largely to the fact that the operation had not been properly performed. He felt that much better results could be obtained by the conjunctive work of the physician and surgeon in these cases, not necessarily with a view to immediate operation, but for the purpose of ascertaining the exact condition present. He advocated an early exploratory operation under cocaine. He felt that pyloroplasty was preferable to gastrojejunostomy from the fact that it put the pylorus in a more normal position. The mortality in pylorectomy he felt was too high to justify its employment except in cases of pyloric cancer. He stated that he had employed the method as described by Hartman in eight cases of pyloric cancer, in each of which the patient had made a good recovery, and they had lived varying lengths of time. Owing to the nature of the growth, however, and the necessary involvement of the lymphatic structures, he felt that it was practically impossible to eradicate entirely the cancerous growth, and that recurrence would take place in a great many instances, for which reason he felt that the method adocated by Dr. Mayo, of direct anastomosis of the lower end of the stomach to the duodenum, would probably produce the best results. He felt that the operation of gastroenterostomy had not been followed in all cases by the results alleged for it by some of the previous speakers, among the untoward effects frequently noted being the "vicious circle" and symptoms of pyloric obstruction due to the fact that the outlet was made too high up in the stomach.

Dr. Johann von Mikulicz, of Breslau, Germany, said that in Germany they had had a much larger operative experience with cancer than seemed tobe the case in this country. For cancer he preferred some form of gastrectomy in all cases where it was possible removing all of the lesser curvature and so much as possible of the gastrohepatic omentum. The relief had been great and cure sometimes resulted. For palliation he employed anterior gastroenterostomy done with the Murphy button; for benign obstruction he made use of a method of pyloroplasty in which an incision similar to Finney was employed, only he had sutured first from the mucous side. He believed that the modification of Finney was very good. For ulcer he preferred posterior gastroenterostomy with the suture.

AMERICAN GYNÆCOLOGICAL SOCIETY.

Twenty-eighth Annual Meeting, Held in Washington, D. C., May 12, 13, and 14, 1903. . . . .

The President, Dr. Joseph E. Janvrin, of New York, in the chair.

(Concluded from p. 1049.

Repetition of Cæsarean Section on the Same Patient; the Experience of the Boston Lying-in Hospital.—Dr. Charles M. Green, of Boston, read a paper with this title. After a brief summary of the experience of the Boston Lying-in Hospital with repeated Cæsarean sections, the writer raised the question of whether it was justifiable, in performing Cæsarean section for either an absolute or an elective indication, to remove normal organs or to resort to other procedures with a view to preventing subsequent pregnancy and the risk of a repeated section. The writer sought to answer this question in the negative and invited discussion of his views. Reference was made to a paper read by Dr. Coe at a meeting of the society in New York in May, 1896. Of nine repeated sections, all performed on a relative indication, four were done, one each, by four other members of the staff, and five by the author. Two were done after labor had been in progress for nine hours each, and seven at an elected date before labor began. One patient had her first section without the hospital; six had their first and second, and one her first, second, and third sections, within the hospital. In one case there were no adhesions; in seven cases there were more or less adhesions; the duration of operation was from 39⅓ minutes to an hour and 24 minutes. In the case of a patient who died of shock the duration was 48 minutes. In one case the utero-abdominal adhesions were so extensive that the fœtus was extracted without opening the peritoneal cavity, and the time of operation was 38 minutes. The nine infants were discharged well; of the nine mothers, one died, a maternal mortality of 11 per cent.

These results were not reported as unique or remarkable; repeated sections had resulted favorably in other clinics. But they were reported in the hope of inducing the opinion that the time had come when the society should withhold its approval of the doctrine that women should be sterilized at their first Cæsarean section, in order that they might not be subjected to the risks of a repeated section.

The President's Address.—This was delivered by Dr. Joseph E. Janvrin, of New York. After paying fitting tributes to Dr. John Byrne, Dr. T. Gaillard Thomas, and Dr. Edward W. Jenks, Dr. Janvrin discussed the subject proper of his address:

The Surgical Treatment of Early Diagnosticated Cancer of the Uterus, more especially by Hysterectomy.—Dr. Janvrin pointed out the conditions in which vaginal or abdominal hysterectomy held out good hopes for a radical cure, also the conditions in which the operation held out some prospect of a radical cure, and certainly a prolongation of life with a more comfortable existence than could possibly be hoped for if hysterectomy were not resorted to.

He took up the development of cancer in and from the cervix. His own observations as to the extension of epithelioma beginning in the cervix were as follows: 1. Up and into the cervical canal. 2. Up and into the uterine body. 3. To the tissues surrounding the cervix, the parametrium, especially. 4. Downward upon the vaginal mucosa, and after a certain time through the mucosa into the wall itself.

The author, after quoting freely from the statistics of other writers, both European and American, regarding cancer of the uterus, stated that his own statistics up to January 1, 1899, were as follows: Abdominal and vaginoabdominal hysterectomies: Twelve cases, two cured, more than eight years having elapsed since operation. Six recurrences. Four deaths from operation (two from shock, one from septicæmia, and one from uræmia.) Percentage of cures, 16.6. Vaginal hysterectomies: Thirty-eight cases, ten permanently cured; fifteen recurrences; four deaths from operation; ten lost sight of after a few months; percentage of cures, 26.3. Total number of cases, 50; twelve cured; general percentage of cures, 24.

He believed that vaginal hysterectomy, with removal of as much parametrium as was possible by this method, and also the removal of the upper half inch or more of the vagina, would accomplish just as much as any other method, and, at the same time, carried with it the least danger as an operation *per se*, for it was extremely rare that a patient succumbed to this operation. It was by following out this rule that the statistics of his own cases up to January, 1899, had been made so favorable. During the past four years he had extended the field of operation for the purpose of removing a highly offensive local condition, and in that way making a longer lease of life more comfortable to the patient and less offensive to herself and her friends. The use of the electric cautery clamp, as improved by Dr. A. J. Downes, should give the best results in this class of cases.

The author's object in his address was to give (1) the conditions under which hysterectomy should always be done for cancer of the uterus, leaving it as a matter of choice to each individual operator as to whether he selects the vaginal or the abdominal or the combined vaginoabdominal route; and, at the same time, to fortify this position with sufficient statistics, at home and abroad, to make the position tenable, and to impress upon the profession at large the absolute necessity of recognizing the early symptoms, and then seeking the advice and assistance of some surgeon who had had a good amount of experience in these cases, so that hysterectomy could be done when it ought to be done; (2) to describe another class of cases in which any operation, no matter how radical, will in a large majority of cases fail to give permanent relief; but, at the same time, to state his entire approbation of it in the hands of experts.

Carcinoma of the Cervix Uteri.—Dr. Thaddeus A. Reamy, of Cincinnati, presented a paper on this subject. Among other things, he stated that spontaneous recovery from carcinoma did not occur. Unequivocal recovery lasting from ten to twenty-five years in two cases following removal of the diseased and adjacent tissues, proved the curability of carcinoma of the cervix and also its local origin. The author reported six cases of carcinoma of the cervix uteri.

Primary Carcinoma of the Vulva.—The author of this paper, Dr. Reuben Peterson, of Ann Arbor, Mich., reported four cases of primary carcinoma of the vulva. He presented a résumé of the literature of the subject and the conclusions drawn therefrom. The cases were narrated in detail. He spoke of the frequency as compared with other carcinomatous conditions of the genital tract, and discussed at length the diagnosis and symptomatology. In considering the operative treatment he spoke of the advisability of removing the inguinal glands.

If carcinoma of the vulva was seen and treated early enough, good results could be obtained. Veit had quoted Schwartz as having ten permanent recoveries out of twenty-three cases. While this might be overstating the facts, it was unquestionably true that there was much more hope of cure in cases of carcinoma of the vulva after the radical operation than after the most radical operations for carcinoma of the uterus.

Renal Decapsulation for Puerperal Eclampsia.—Dr. George M. Edebohls, of New York, read a paper on this subject (to be published).

Discussion: Should the Uterus be Removed when the Ovaries and Tubes are Removed in

Cases of Double Pyosalpinx, when Operating Either Through the Abdomen or Through the Vagina?—Dr. Andrew F. Currier, of New York, in a contribution on this subject, stated that if this was proposed as a matter of routine, the writer would reply emphatically, no. If it was proposed as an expedient, when the uterus itself was diseased, extensively diseased, he would say, yes. It might also be removed if it had been greatly injured in the extrication of the appendages, or if it should seem to be required as a means of controlling troublesome hæmorrhage. To remove the uterus in a young woman might possibly produce an unfavorable mental effect as a consequence, near or remote. To remove the uterus from one near, at, or past the menopause, might add an element of risk to the operation. To remove the uterus might weaken the pelvic roof, and might introduce an element of danger from enterocele. To remove the uterus unnecessarily was bad morally, for it tended to establish the impression of the unimportance of the organ, and that it might be unhesitatingly extirpated by any one who had the requisite skill. To remove the uterus on the ground that it might possibly be the seat of malignant disease in the future was assuming more than the clinical history taught in the great majority of cases, and was, moreover, a reproach to surgery, making it destructive instead of conservative.

Dr. Philander A. Harris, of Paterson, N. J., said that when suppuration had become well estalished in both tubes their exsection was the only operation which could be relied upon to effect a cure. By exsection was meant, the removal of the lumen of the tube to the uterine mucosa. Less radical operations, as hemisection and disinfection of the ampullæ and larger portions of the tube, probing and washing of the tube and amputation of distal portions of pus tubes were incomplete operations, and were proportionately unsuccessful in that they left behind a diseased sinus, which not only continued to exist, but was productive of discomforts and other ill consequences to a greater or less extent. In bilateral exsection of double pyosalpinx sufficient ovarian stroma might be left to influence and continue menstruation in at least 95 per cent. of any large class of cases operated upon. The ovaries frequently participated in suppuration which they derived from pus tubes. But in them suppuration was more easily terminated and exsection was not advised excepting for extensive abscess of the ovary at the time the tubes were exsected, or a belief or knowledge that the suppuration in the ovary was tuberculous in character. Simple excision of double pyosalpinx afforded the maximum degree of relief with a minimum of mutilation and interference with the functions of the pelvic organs. The complaints arising from the existence of endometritis often ceased after simple exsection of double pyosalpinx. If the symptoms of endometritis continued, and greatly harassed the patient, the uterus might be removed by vaginal section. The price of removal of the uterus in every case of double pyosalpinx might be partly estimated by the following results: 1. Loss of menstruation in every instance. 2. Partial or complete extinction of the sexual quality in a large proportion of the cases, together with incomplete physical capacity for sexual participation. 3. Injury to the nervous system of the patient, arising from her knowledge and appreciation that she had been prematurely and possibly unnecessarily deprived of these and other qualities which rendered her physically and, to a certain extent, morally, inferior to other women.

Dr. I. S. Stone, of Washington, D. C., stated that no organ should be removed unless it was absolutely necessary. In a large majority of cases the pus found in diseased annexa was sterile. It followed that the chief element of danger from sepsis was eliminated, and the uterus was not the seat of dangerous microbic infection. The exception to the above rule might be found in puerperal infections. When purulent annexa were removed the uterine cornua should be excised and the uterus permanently sealed, and thus made a barrier against further infection and also to permit effective treatment addressed to the uterine cavity if necessary. Hysterectomy required additional time, caused further traumatism, and necessitated changes in the anatomical relations of the vagina, bladder, etc. If necessary to drain the pelvis by way of the vagina, the usual route through the cul de sac posterior to the uterus answered every purpose. Finally, a number of women objected to panhysterectomy, and besides the question of its effect upon the mental status of the patient was *sub judice*.

Dr. Matthew D. Mann, of Buffalo, said (1) that the almost sole cause of pus tubes was gonorrhœa, though there might be a mixed infection. (2) The uterus was usually infected and might make trouble afterward and be the cause of spreading the infection. (3) The uterus was no longer of any use. (4) Menstruation did not always stop after the removal of the tubes and ovaries; and if it remained, it might become excessive and cause trouble. (5) It might become the seat of cancerous disease. (6) In acute infection the removal of the uterus afforded the best means of securing drainage. (7) The results by the vaginal route, where the uterus was always removed, warranted its removal by the abdominal route. (8) The woman's sexual life was unaffected by the removal of the uterus. (9) The additional time taken for its removal was more than counterbalanced by the securing of good drainage.

Dr. Charles P. Noble, of Philadelphia, said that of hysterectomy for circumscribed pus limited to the uterine appendages, that is, pyosalpinx or abscess of the ovary, he had had 58 cases, one death, a mortality of 1.7 per cent. Of hysterectomy for intraperitoneal abscess in addition to pus in the uterine appendages, he had had 6 cases, 4 deaths, a mortality of 66⅔ per cent. Of appendages removed for circumscribed pus contained in the tube or ovary, that is, pyosalpinx or abscess of the ovary, 76 cases, 7 deaths, a mortality of 9.2 per cent. Of appendages removed for circumscribed pus contained in a tube or ovary since January 1, 1895, 36 cases, 2 deaths, mortality 5.5 per cent. Of appendages removed for intraperitoneal abscess in addition to pus in ovary and tube, 22 cases, 5 deaths, mortality 22.7 per cent. Incision and drainage for pelvic suppuration, 58 cases, 1 death, mortality 1.7 per cent.

Ureterocystotomy.—Dr. J. Wesley Bovée, of Washington, D. C., narrated the history of this operation, pointed out the indications, discussed the diagnosis, routes and methods of operation, complications, technique, after-treatment, detailed histories of cases, and gave the results.

Note on the Occurrence of Gall Stones in Insane Women.—Dr. Walter P. Manton, of Detroit, read a paper on this subject. He stated that cholelithiasis was of frequent occurrence among insane women, but that symptoms were usually wanting, so that statistics must be obtained solely from autopsy findings. From his experience at the Eastern Michigan Asylum he found that gall stones were present in rather more than 26 per cent. of the patients dying at that institution in whom the abdominal contents were examined. The paper was intended only as a small contribution to the knowledge of the subject, and as preliminary to more extensive discussion of gall stones in insane women at some future time.

Excision of the Proximal Ends of the Fallopian Tubes at their Origin in the Uterus the Operation of Choice for the Extremely Rare Cases Wherein Sterility is Desirable.—Dr. Philander A. Harris, of Paterson, N. J., contributed a paper with this title. The object of this operation was to take the place of the Porro operation; to take the place of bilateral removal of the ovaries; to take the place of bilateral excision of healthy tubes. Menstruation would not be sacrificed. Every advantage arising from retention of the ovaries would be preserved to the individual, excepting the single item of impregnation. Tubes thus disconnected from the uterus would probably remain immune from future gonorrhœal infection of the endometrium. A patient thus sterilized could doubtless be cured of her sterility by implantation of the tubes through the uterine cornua to the uterine cavity. While there were doubtless cases which were characterized by certain conditions of the body, mind or nervous system calling for the voluntary production of sterility, there must necessarily be a very limited field for the employment of this operation. If a patient was to be surgically sterilized, it should be effected in such manner that the patient and her friends might feel that she could be restored to fertility, should the pathological factors of her case so abate or disappear as to render impregnation and pregnancy permissible. No attempt was made to present the indications for an operation which produced sterility for temporary purposes; although such instances were believed to be within the range of possibility, and if so, emphasized the advantage of doing the primary operation in the manner proposed.

Personal Experience in Operations upon Diabetic Patients.—Dr. Charles P. Noble, of Philadelphia, in discussing this topic, said that of the seven patients operated upon by himself, six had made good recoveries, and one had died of diabetic coma. In the six remaining cases the healing of the wounds and the general progress of the patients toward recovery were not different from that in patients not the subject of glycosuria. In looking up the literature of the subject he had been able to add to his own list sixty-two cases of operations upon diabetics, upon those organs of the body which were the special field of the gynæcologist and abdominal surgeon, making a total of sixty-nine cases.

The contraindication to operation was strongest in those patients suffering markedly from the constitutional symptoms of diabetes—poor nutrition, wasting, intense thirst, and morbid appetite.

Officers for the Ensuing Year.—The following officers were elected: President, Dr. Edward Reynolds, of Boston; vice-president, Dr. J. Whitridge Williams, of Baltimore, and Dr. Edward P. Davis, of Philadelphia; secretary, Dr. J. Riddle Goffe, of New York; treasurer, Dr. J. Montgomery Baldy, of Philadelphia. Place of meeting, Boston, beginning on the fourth Tuesday in May, 1904.

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Book Notices.

How to Succeed in the Practice of Medicine. By Joseph McDowell Mathews, M. D., LL. D., President of the American Medical Association, 1898-'99, etc. Louisville: John P. Morton & Co., 1902. Pp. xii-215.

This is not one of those books that purport to tell the young practitioner solely how he can collect his bills; it tells him, on the contrary, how he can become and remain a respected and self-respecting member of any community. Without having aimed at writing a treatise on ethics, Dr. Mathews has, nevertheless, given us in this book a delightful sketch of the ideal physician's career. It is intensely readable from cover to cover, interspersed as it is with anecdote, retrospect, and pictures of the bliss of a correct life. No physician, young or old, can fail to profit by its perusal or to be entertained by its charming style. Dr. Mathews has long had a wide acquaintance with his professional brethren, and he has invariably impressed them—and most truthfully—with his lively spirit of sympathy. To most of us it is too seldom given to look Dr. Mathews in the face; the next best thing is to gaze upon his portrait. We are glad, therefore, that the publishers have inserted it as a frontispiece.

The Treatment of Fractures. By Charles Locke Scudder, M. D., Assistant in Clinical and Operative Surgery, Harvard University Medical School; Surgeon to the Out-patient Department, Massachusetts General Hospital. Third Edition, thoroughly revised. With 645 Illustrations. Philadelphia and London: W. B. Saunders & Company, 1902. Pp. 485.

The general revision of this excellent work seems to have been very thorough. The most notable addition is a chapter or gunshot fractures of bone, largely based on the experience of such military surgeons as Kocher, Treves, Nancrede, Makins, Senn, Borden, and La Garde, who have particularly studied the effects of the modern small calibre bullet in recent wars. The main facts brought out by these skilled observers are well set forth by Dr. Scudder. We regard the work as indispensable to the surgeon of the present day.

Work Book in Surgery. Comprising the Principles of General Surgery and Surgical Procedure. By LUZERNE COVILLE, Lecturer on Surgery, formerly Lecturer in Anatomy, Cornell University Medical College, at Ithaca, etc. Ithaca, N. Y., privately printed, 1902. Pp. x-294.

This little book is too fragmentary to be of much service to those who are not under the author's personal teaching. It has been very carelessly written.

BOOKS, ETC., RECEIVED.

Ueber die Ursachen, das Wesen und die Behandlung des Klumpfusses. Von Dr. Julius Wolff, weil. Geh. Medicinalrath, a. o. Professor der Chirurgie und Director der Königl. Universitäts-Poliklinik für orthopädische Chirurgie zu Berlin. Herausgegeben von Professor Dr. George Joachimsthal. Mit Portrait Julius Wolff's und Textfiguren. Berlin: August Hirschwald. 1903. Pp. v-161.

Journal of the Association of Military Surgeons. James Evelyn Pitcher, Editor. Carlisle, Pa.: The Association of Military Surgeons. 1903. Pp. ii-xxxvi and 277-348. (Price, $3.00 a Year, Thirty Cents a copy.)

Quarterly Report of the Medical Officer of Health, of Islington, London. First Quarter, 1903. London: Vail & Co., 170 Farringdon Road, E. C.

Transactions of the American Dermatological Association. At its Twenty-sixth Annual Meeting. Held in Boston, Mass., September 18th, 19th and 20th, 1902. Official Report of the Proceedings. By Frank Hugh Montgomery, M. D., Secretary. Chicago: P. F. Pettibone & Co. 1903. Pp. 9-222.

Index-Catalogue of Medical and Veterinary Zoology. Part 3. (Authors: C to Czygan.) By Ch. Wardell Stiles, Ph. D., Consulting Zoologist of Bureau of Animal Industry; Zoologist of U. S. Public Health and Marine-Hospital Service ,and Albert Hassall, M. R. C. V. S. Acting Assistant Zoologist of Bureau of Animal Industry. U. S. Department of Agriculture. Bureau of Animal Industry, Bulletin No. 39. Washington: Government Printing Office. 1903. Pp. 199-324.

The Röentgen Rays in Medicine and Surgery. As an Aid in Diagnosis and as a Therapeutic Agent. Designed for the Use of Practitioners and Students. By Francis Williams, M. D. (Harv.), Graduate of the Massachusetts Institute of Technology; Visiting Physician at the Boston City Hospital; Fellow of the Massachusetts Medical Society; Member of the Association of American Physicians, etc. With Four Hundred and Twenty-eight Illustrations. Third Edition with Enlarged Appendix. New York: The Macmillan Company. London: Macmillan and Co., Ltd. 1903. Pp. v-757. (Price, $6.00.)

How to Keep Well. An Explanation of Modern Methods of Preventing Disease. By Floyd M. Crandall, M. D. New York: Doubleday, Page & Company. 1903. Pp. v-511.

The Errors of Accommodation and Refraction of the Eye and their Treatment. A Handbook for Students. By Ernest Clarke, Fellow of the Royal College of Surgeons of England; Doctor of Medicine and Bachelor of Surgery of the University of London, etc. New York: William Wood & Company. MDCCCCIII. Pp. vii-225. (Price, $1.75.)

International Clinics. A Quarterly of Illustrated Clinical Lectures and especially-prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pædiatrics, Obstetrics, Gynæcology, Orthopædics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession throughout the World. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia, U. S. A. With the Collaboration of Wm. Osler, M. D., Baltimore; John H. Musser, M. D., Philadelphia; Jas. Stewart, M. D., John B. Murphy, M. D., Chicago; Thomas M. Rotch, M. D., Boston; John G. Clark, M. D., Philadelphia; James J. Walsh M. D., New York; J. W. Ballantyne, M. D., Edinburgh; John Harold, M. D., London; Edmund Landolt, M. D., Paris; Richard Kretz, M. D., Vienna. With Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume I. Thirteenth Series 1903. Philadelphia. J. B. Lippincott Company. 1903. Pp. iii-306.

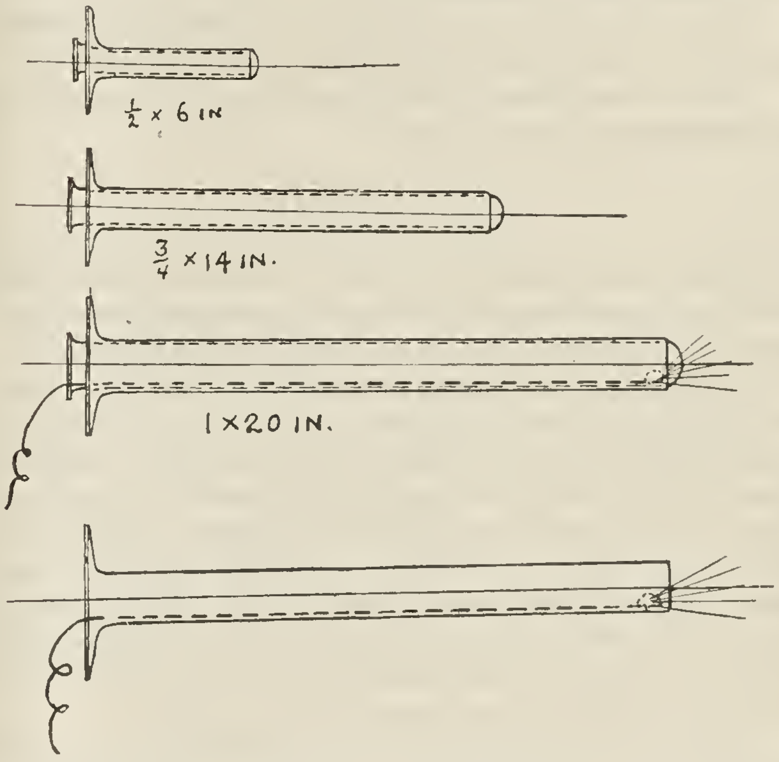
New Inventions.

A NEW PROCTOSCOPE AND SIGMOIDSCOPE.

By F. B. MARSHALL, M. D.,
MUSKEGON, MICH.

This instrument consists to two tubes. The inner, fitting closely inside the outer and closed at the distal end, is composed of glass, and acts as entering plug. The outer, being open at both ends, allows direct application to any part of the bowel explored, when the inner tube is withdrawn and light reapplied.

When the instrument has passed the sphincters the inner tube should be withdrawn, to allow atmospheric air to inflate the bowel, and should be reintroduced before attempting to pass the rectosigmoid valve.



Dr. Marshall's Proctoscope. The lowest figure shows the inner tube removed and the light reapplied.

The light in the inner glass tube affords the operator a good view of every portion of the bowel explored, and enables him to avoid pushing the instrument against ulcerated surfaces. The metal plug instruments have been pushed through deeply ulcerated portions of the bowel, as it is impossible for the operator to see each portion of the bowel before the instrument reaches it.

These instruments possess every advantage of other proctoscopes and sigmoidscopes, are inexpensive, and can be safely used by the most inexperienced physician.

The patient should have all constriction removed from the waist and be in the knee-chest position. The operator should constantly bear in mind the normal direction of the bowel; through the distal two inches the instrument should be made to pass as though the umbilicus were the objective point, then it should be turned abruptly backward, or rather upward, in the proctoscopic posture, into the hollow of the sacrum, the concavity of which is closely followed for the succeeding four inches. The instrument readily enters the sigmoid after passing the rectosigmoid valve.

Miscellany.

Surgery of the Heart. By Benjamin Merrill Ricketts, Ph. B., M. D. (*Continued from p.* 964).

ANEURYSM.

1843-1903.

Aneurysm may involve any portion or the whole of the cardiac wall. The left ventricle and upper portion of the intraventricular sæptum are the most frequently involved.

Heart strain and syphilis are the most frequent causes.

There is no group of symptoms that will definitely determine their presence.

The rupture in the direction of least resistance, which may be in the pericardial or pleural cavity.

There have been one hundred and twenty-five contributions to this subject.

CARDIORRHAPHY.

There have been fifty-three cases in which gun shot and stab wounds of the heart have been sutured; in eighteen of which recovery took place.

Penetrating or non-penetrating wounds of the walls of the four chambers of the heart have been sutured with more or less success, the ages varying from childhood to old age in both man and woman. Some have been done with and some without the use of chloroform or ether. Some have been sutured with silk and some with catgut. The time of operation after injury has varied from immediately to twenty hours. Accident to the coronary artery during operation has occurred in one case.

There have been twenty-six contributions to this subject.

CARDIOLITHS AND CONCRETIONS.

are quite common, and originate from the blood, polypoid growths, clots or microorganisms. They may form in any part of the myocardium and rupture into the pericardial cavity or into any of the cardiac chambers, and may afterwards pass into other chambers of the heart, or pass out beyond the tricuspid valves. There are many such cases reported, beginning with that of Goodwin (1700).

There have been sixty contributions to this subject.

FOREIGN BODIES.

1814-1903.

Foreign bodies in the hearts of bipeds are usually found in the floor of one of the ventricles.

The heart of the quadruped is in a different position from that of the biped; it falls backward when man is upon his back; in the animal forward when he walks about or lies down.

Foreign bodies in the heart are of two types, those that form within the heart itself, and those that had been made to enter the heart from without. The latter consist of metals of various kinds and shapes, wood, glass, etc.

Ferris (1882) reports a case of a man who lived twenty days with a screw traversing his heart.

There have been twenty-five contributions to this subject.

OSSIFICATION AND CALCIFICATION.

1822-1903.

A deposit of calcium carbonate or phosphate associated with some of the salts of magnesium is sometimes found in the heart. It may be deposited in the endothelium and the intermuscular fibres. It is usually preceded by fibrosis and is due to weak circulation and chronic irritation. Gibson says the cause is absolutely unknown. It has been known to surround the substance of the heart.

There have been forty-eight contributions to this subject.

SYPHILITIC GUMMATA.

1862-1903.

Syphilis is a great factor in producing the more serious cardiac affections, such as chronic valvular disease after middle life. Many cases of changes in the heart muscle are due to it. Acute myocarditis, fibrosis, and gummata are the syphilitic affections of the heart. Gummata may be found in any part of the myocardium.

There have been seventy-six contributions to this subject.

ABSCESS.

1833-1903.

Abscess of the heart is usually pyæmic, and is associated with disease of the bone and joints, cancer, phlebitis, myocarditis, and chronic ulcers, especially about the genitourinary tract.

Abscesses vary in size from a millet seed to a bantam's egg; as a rule they are situated at the base of the left ventricle in the papillary muscles. They may remain semisolid or may contain fluid and rupture into the pericardial space or into one or all of the chambers of the heart, and may finally enter the general circulation.

Death may fail to ensue from either character of rupture, the result depending upon the character of the fluid, its amount, and the condition of the patient at time of rupture.

One of the earliest reports of abscess at the heart is by Broussais (1832).

Such a condition was found in the heart of a horse by Parry, in 1835.

Dr. Roswell Park aspirated an abscess in the wall of the heart in 1877. It was purely accidental, as he thought he was aspirating the fluid in the pericardial cavity. The patient died several hours after, and autopsy revealed the facts. This is probably the first and only case of abscess of the heart opened surgically in any manner in the living human body. It shows what can and should be done; if necessary, opening the pericardial cavity for exploration.

There have been thirty-three contributions to this subject.

GANGRENE.
1850-1903.

Gangrene of the heart is less frequent than any disease of the heart herein mentioned. The first case reported is by Gaullay (1807).

Dr. Daniel Young, of Cincinnati (1868), reported an interesting case of gangrene of the heart. He is one of only five contributors to this subject.

TUMORS OF THE HEART: SARCOMA.
1880-1903.

Sarcoma of the heart is rare. It may be primary or secondary; slow or rapid in its development. It is composed of embryonic connective tissue, very vascular, sometimes pulsating, and intimately connected with blood vessels. It is more frequent in men than in women, and usually occurs after forty years of age.

Gross (1880) was one of the first to record a round cell sarcoma of the heart.

Leroux and Meslay (1896) and Lambert (1898) record a case of primary sarcoma of the heart.

There are eleven contributions to this subject.

CARCINOMA.
1847-1903

Carcinoma is found more frequently upon the right heart; it may be primary or secondary, usually secondary. It is more likely to produce pericarditis than sarcoma. It is most difficult to classify primary and secondary carcinoma of the heart.

There have been seventeen contributions to this subject.

FIBROMA.
1852-1903.

Fibroid tumors of the heart are not common in form, while fibroid degeneration of the heart is frequent and may involve a part or the whole of the muscular structure. It rarely, if ever, takes the form of a tumor.

Fibroid tumors may develop in any of the heart structures, preferably in the muscles. Gull, in 1852, found a fibroid tumor attached to the muscular tissue of the left ventricle of the heart of a sheep. Elliott (1856) found one in the right ventricular wall of the heart of man. In his case there was a sacculated aneurysm and dilatation as the result of its pressure.

There are eighteen contributions to this subject.

LIPOMA.
1886-1903.

Lipomata of the heart are comparatively rare. They are connected with the fat about the heart upon the external surface. They may or may not be associated with fatty degeneration of the heart. They are benign and are usually found after middle life, and more frequently in women than men.

The first to record such a case was Banti, in 1886.

There have been five contributions to this subject.

RHABDOMYOMATA

are a rare form or primary myoma, characterized by the presence of striated muscular fibres. They are found in muscular tissues of the heart upon the endocardial or pericardial surfaces, or within the cardiac walls. They are single as a rule, but may be multiple and attain any size.

MYXOMA

is a mucous tumor composed of connective tissue, gelatinous in character, and containing intercellular substance, in which are scattered peculiarly branched or stellate cells.

It attacks the epithelium or connective tissue enveloping one or both, may be single or multiple, and may vary in size and shape, appearing in any portion of the heart.

There are three contributions to this subject.

POLYPS.
1689-1903.

Polypoid growths may develop upon part of the endocardium or at any point upon the external surface of the heart. They are benign when composed of fibrous tissue; slow in their development; and when rapid are associated with sarcoma and myxoma. They may have a broad base or may be pedunculated. They may become detached in part or as a whole, and may occlude one or more of the cardiac orifices, enter the general circulation, or both, and act as an embolism.

Pretten (1689) described polyps within the cardiac chambers.

There has been forty-seven contributions to this subject.

(*To be concluded.*)

The Fees of Medical Witnesses.—The question as to whether a medical man summoned as a witness in a criminal case is entitled to a fee having some relation to his professional status, or only to the statutory fee allowed to an ordinary witness, is in no little confusion, owing to diverse decisions that have been rendered. The *British Medical Journal* for May 23rd says that the practitioner has a remedy if he chooses to employ it. "He may bring an action against those who have subpœnaed him, and this although there is no express contract to the effect that he is to be paid for his services. It seems that mere attendance at the court is sufficient evidence of an agreement. A recent case in the City of London Court shows that a professional man may reasonably expect remuneration, even if there is no express agreement. It seems that a solicitor brought an action against the registrar of the Peterborough district to recover the sum of £12 1s. 6d., the balance of £12 12s. which he alleged to be due to him for attending court on a subpœna. He had allowed for four days, and claimed £3 3s. a day. It was contended on the part of the defendant that the plaintiff's proper remedy was to have stayed away from court, and that there was no right of action. Judge Rentoul, however, after reviewing decisions on the subject dating back one hundred years, and although he felt some doubt as to the law governing subpœnas, said that common sense required him to find for the plaintiff for £8 8s., that is, remuneration at the rate of £2 2s. a day."

Herrick on Surfeits.—In the *Hesperides* of Robert Herrick, number 896, the poet sings:

> Bad are all surfeits; but Physitians call
> That surfeit tooke by bread, the worst of all.

And again (*Hesperides*, number 952):

> Physitians say Repletion springs
> More from the sweet then sower things.

And *per contra* (number 1118):

> Against diseases here the strongest fence
> Is the defensive vertue, Abstinence.

Again (number 1050):

> If wholesome Diet can re-cure a man,
> What need of Physick, or Physitian?

The Banishment of Bubonic Plague from the Philippines is the subject of an article in the May number of the *National Geographic Magazine*. The following extracts are quoted from the *American Monthly Review of Reviews* for June:

"Bubonic plague was discovered at Manila on December 26, 1899, and slowly but steadily increased in its ravages up to December, 1901.

'The deaths in 1900 numbered 199, and in 1901 reached a total of 432. The disease was at its worst each year during the hot, dry months of March, April, and May, nearly or quite disappearing during September, October, November, and December. It will be noted that the number of cases in 1901 exceeded that in 1900 by 200, while the number of deaths was about two and a half times as great, and the percentage of mortality among persons attacked increased from 73.4 in 1900 to 91.7 in 1901.

'This heavy increase in plague for the year 1901 justified the apprehension that a severe epidemic would occur in 1902. Strenuous efforts were made to improve the general sanitary condition of the city, but the habits of the Chinese residents and the lower class of Filipinos were such as to render the enforcement of proper sanitary regulations well-nigh impossible.

'On account of the important part which house rats are known to play in the distribution of bubonic plague, a systematic campaign was inaugurated against these rodents in Manila. Policemen, sanitary inspectors, and specially appointed rat-catchers were furnished with traps and poison, and both traps and poison were distributed to private individuals under proper restrictions. A bounty was paid for all rats turned over to the health authorities, and stations were established at convenient points throughout the city where they could be received. Each rat was tagged with the street and number of the building or lot from which it came, was dropped into a strong antiseptic solution, and eventually sent to the Biological Laboratory, where it was subjected to a bacteriological examination for plague. During the first two weeks, 1.8 per cent. of the rats examined were found to be infected. This proportion steadily increased, reaching the alarming maximum of 2.3 per cent. in October. At this time numerous rats were found dead of plague in the infected districts, and, in view of the fact that epidemics of plague among the rats of a city in the past have been uniformly followed by epidemics among human beings, the gravest apprehension was felt, the rapid spread of the disease among the rats after the weather had become comparatively dry being a particularly unfavorable symptom.

'It was deemed necessary to prepare to deal with a severe epidemic, and a permanent detention camp, capable of accommodating fifteen hundred persons, was accordingly established on the grounds of the San Lazaro Hospital. Hoping against hope, the board of health redoubled its efforts to combat the disease. The force of sanitary inspectors was greatly increased, and under the able supervision of Dr. Meacham their work was brought to a high degree of efficiency. Frequent house to house inspections were made in all parts of the city where the disease was known to exist. The sick were removed to the hospital if practicable; otherwise they were cared for where found and the spread of infection guarded against.

'Plague houses were thoroughly disinfected, and their owners were compelled, under the direction of the assistant sanitary engineer, to make necessary alterations. Cement ground floors were laid; double walls and double ceilings, affording a refuge for rats, were removed; defects in plumbing were remedied; whitewash was liberally used, and, in general, nothing was left undone that could render buildings where plague had occurred safe for human occupancy. Buildings incapable of thorough disinfection and renovation were destroyed. Buildings in which plague rats were taken were treated exactly as were those where the disease attacked the human occupants. The bacteriological examination of rats enabled the board of health to follow the pest into its most secret haunts and fight it there, and was the most important factor in the winning of the great success which was ultimately achieved.

'With very few exceptions, there was no recurrence of plague in buildings which had been disinfected and renovated. As centre after centre of infection was found and destroyed, the percentage of diseased rats began to decrease, and in January, 1902, when, judging from the history of previous years, plague should have again begun to spread among human beings, there was not a single case. In February, one case occurred. In March, there were two cases, as against sixty-three in March of the preceding year, and before April the disease had completely disappeared.

'This result, brought about at a time when the epidemic would, if unchecked, have reached its height for the year, marked the end of a fight begun by the board of health on the day of its organization and prosecuted unremittingly under adverse conditions for seven months, with a degree of success which has not been equaled under similar conditions in the history of bubonic plague.

'During 1901, plague appeared at several points in the provinces near Manila. Agents of the board of health were promptly dispatched to the infected municipalities, and radical remedial measures were adopted, including, in several instances, the burning of infected buildings, the result being the complete disappearance of plague in the provinces as well as in Manila.'

The *Review of Reviews* adds: "The chief health inspector, Dr. Franklin R. Meacham, to whom the greatest credit is due for the success of these repressive measures, lived only to see the battle won. Exhausted by the strain of the long struggle, he died in April, 1902, but not till after it could be truly said that he had freed the Philippines of bubonic plague."

What could be done in the Philippines can surely be done in other Oriental countries under the dominion of European powers. Hongkong has always been a danger centre, through its widespread commerce, and it behooves the British authorities not to lag behind in the race in which the lead has been so well taken by the United States.

St. John's Leper Asylum, Burmah.—St. John's Leper Asylum, in Burmah, Farther India, which is now one of the most noble institutions, not only in Burmah, but in the world, had a very humble beginning, says the London *Graphic*. In 1888, shortly after the annexation of Upper Burmah to the English dominion, the late Bishop Simon addressed the authorities on the subject of lepers, and in 1891, the Rev. Father Wehinger, following the example of the immortal Father Damien, founded the St. John's Leper Asylum outside Mandalay. Inch by inch the asylum has grown through the untiring efforts of its originator, and within the last three years new wards have been added, the accommodations being entirely inadequate. At its initiation the number of lepers in Burmah was variously estimated at from 18,000 to 30,000.

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Official News.

Infectious Diseases in New York:

We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending June 13, 1903:

DISEASES.	Week end'g June 6.		Week end'g June 13.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	471	18	413	17
Diphtheria and Croup	437	52	443	44
Scarlet fever	261	29	315	15
Small-pox	1	0	1	0
Chicken-pox	98	0	102	0
Tuberculosis	396	158	343	145
Typhoid fever	50	10	59	6
Cerebrospinal meningitis	0	9	0	3

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army, for the Week ending June 13, 1903:

CHAFFEE, JEROME S., First Lieutenant and Assistant Surgeon. The resignation of his commission as an officer in the United States Army has been accepted by the President, to take effect July 1, 1903.

DE WITT, WALLACE, First Lieutenant and Assistant Surgeon. Ordered to Fort Porter, N. Y., for duty.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera and plague, have been reported to the surgeon-general, Public Health and Marine Hospital Service, during the week ending June 13, 1903:

Smallpox—United States.

Places.	Date.	Cases.	Deaths.
Alabama—Mobile	May 30-June 3	3	
California—Fresno	May 1-31	13	
California—Los Angeles	May 23-30	4	
California—San Francisco	May 24-31	4	
Connecticut—Stamford	May 1-31	1	
Florida—Columbia County	May 23-30	1	
Florida—Duval County	May 23-30	4	
Florida—Escambia County, Pensacola	May 23-30	2	
Florida—Leon County	May 23-30	5	
Georgia—Atlanta	May 28-June 3	2	
Illinois—Chicago	May 31-June 6	12	
Illinois—Danville	May 31-June 6	1	
Indiana—Indianapolis	May 31-June 6	2	
Iowa—Des Moines	May 31-June 6	1	
Louisiana—New Orleans	May 31-June 6	4	
Maine—Bucksport	June 3	1	
Maryland—Baltimore	May 30-June 6	1	
Massachusetts—Fall River	May 30-June 6	9	
Michigan—Detroit	May 28-June 6	17	1
Michigan—Flint	May 23-June 6	2	
Michigan—Grand Rapids	May 28-June 6	4	
Michigan—Port Huron	June 1-8	1	
Nebraska—Omaha	May 29-June 6	3	
New Hampshire—Nashua	May 29-June 6	9	
New York—New York	May 29-June 6	1	
New York—Rochester	May 24-June 7		3
Ohio—Cincinnati	May 28-June 5	4	1
Ohio—Cleveland	May 30-June 6	5	
Ohio—Hamilton	May 30-June 6	1	
Ohio—Toledo	May 16-30	8	
Pennsylvania—Altoona	May 29-June 6	3	
Pennsylvania—Erie	May 29-June 6	1	
Pennsylvania—Johnstown	May 29-June 6	1	
Pennsylvania—McKeesport	May 29-June 6	2	1
Pennsylvania—Philadelphia	May 29-June 6	31	4
Pennsylvania—Pittsburg	May 29-June 6	9	6
South Carolina—Charleston	May 28-June 6	4	
Tennessee—Memphis	May 23-June 6	6	
Texas—San Antonio	May 1-31	2	
Wisconsin—Milwaukee	May 23-June 6	54	

Smallpox—Insular.

Hawaii—Honolulu	May 7	1	

Smallpox—Foreign.

Austria—Prague	May 16-23	4	
Belgium—Antwerp	May 16-23	6	
Belgium—Brussels	May 16-23		8
China—Hongkong	Apr. 11-25		2
China—Shanghai	Apr. 24-May 2		3
Colombia—Barranquilla	May 17-24		1
Colombia—Bocas del Toro	May 19-26		5
France—Paris	May 16-23		1
Great Britain—Dublin	May 16-23	12	4
Great Britain—Dundee	May 8-16	5	
Great Britain—Liverpool	May 16-23	49	6
Great Britain—London	May 16-23	19	
Great Britain—Manchester	May 16-23	14	
Great Britain—Newcastle-on-Tyne	May 8-16	3	
Great Britain—Sheffield	May 8-16	4	
Great Britain—South Shields	May 8-16	1	
Great Britain—West Hartlepool	May 16-23	2	
India—Calcutta	Apr. 11-18		3
Russia—Moscow	May 8-16	4	2
Russia—St. Petersburg	Apr. 25-May 16	103	10
Russia—Warsaw	Apr. 18-May 2		5

Yellow Fever.

Colombia—Panama	May 18-June 1	10	6
Costa Rica—Limon	May 21-28	3	2
Mexico—Coatzacoalcos	May 23-30	1	1
Mexico—Pregreso	June 3	1	
Mexico—Tampico	May 23-30	8	5
Mexico—Vera Cruz	May 23-30	16	4

Cholera—Insular.

Philippines—Manila	Apr. 11-May 2	52	47
Philippines—Provinces	Apr. 11-May 2	1,342	729
	Not previously reported,	81	79

Cholera—Foreign.

India—Calcutta	Apr. 11-18		129
Turkey—Damascus	Mar. 29-Apr. 18		33

Plague.

China—Hongkong	Apr. 11-25	130	119
India—Calcutta	Apr. 11-18		588
Peru—Callao	To May 12	10	4

Naval Intelligence:

Official List of Changes in the Medical Corps of the United States Navy, for the Week ending June 13, 1903:

Anderson, F., Medical Director. Detached from the *Alabama* and ordered to the *Brooklyn*.

Block, W. H., Acting Assistant Surgeon. Detached from the Naval Recruiting Station, Chicago, Ill., and ordered to the Navy Yard, New York.

Byrnes, J. C., Surgeon. Ordered to the *Texas*.

Decker, C. J., Surgeon. Ordered to the *Alabama*.

Elmer, M. K., Assistant Surgeon. Detached from the *Ranger* and ordered to the *Independence*.

Farenholt, A., Passed Assistant Surgeon. Detached from the *Boston* and ordered to the *Concord*.

Gravatt, C. U., Medical Director. Retired on account of disability incurred in active service.

Huntington, W. H., Pharmacist. Retired from active service an account of disability incident to service.

Kindelberger, C. P., Passed Assistant Surgeon. Detached from the *Iowa* and ordered home to await orders.

Leach, P., Surgeon. Detached from the *Columbia* and ordered to the *Massachusetts*.

Morgan, D. H., Passed Assistant Surgeon. Detached from the *Boston* and ordered to the Naval Hospital, Mare Island, for treatment.

Pickrell, G., Surgeon. Detached from the *Texas* and ordered to the *Iowa*.

Smith, R. K., Passed Assistant Surgeon. Detached from the *Independence* and ordered to duty at the Naval and Marine Recruiting Stations, San Francisco, Cal.

Spratling, L. W., Surgeon. Detached from the Navy Yard, New York, and ordered to the *Columbia*.

Steele, J. M., Surgeon. Detached from the *Massachusetts*, and granted leave for six months.

Stokes, C. F., Surgeon. Ordered to the Navy Yard, League Island, Pa.

The following doctors have been appointed Assistant Surgeons from May 25, 1903: W. H. Reenie, W. W. Verner, O. Kohlhase, and P. S. Rossiter, and from June 2, 1903, W. B. Smith and W. S. Hoen.

The following passed assistant surgeons have been commissioned Passed Assistant Surgeon with rank of Lieutenant, from March 3, 1903: Orvis, Kerr, Grow, Grunwell, Langhorne, Thompson, Benton, Garton, McCullough, Furlong, Angeney, Bell, Curl, Bell, Holcomb, Parker, Wright, Plummer, Odell and Taylor.

The following surgeons have been commissioned Surgeons, with rank of Lieutenant Commander, from March 3, 1903: Means, Cordeiro, Wieber, Norton, Kite, Wentworth, Decker, Berryhill, Stone, Pickrell, Crandall, Harris, Urie, McCormick, Arnold, Wilson, Stokes, Stitt, Gates, Lowndes, Barber, Rotranger, Smith, Lung, Von Wedekind, Bogert, Spratling, Kennedy, Blackwood, Braisted and Evans.

Public Health and Marine Hospital Service:

Official List of Changes of Station and Duties of Commissioned and Non-commissioned Officers of the Public Health and Marine Hospital Service, for the Seven Days ending June 11, 1903:

Allen, G. C., Pharmacist. Granted extension of leave of absence for twenty-three days, from June 5th.

Bready, J. E., Acting Assistant Surgeon. Granted leave of absence for three days.

Carmichael, D. A., Surgeon. Leave of absence for seventeen days, from May 19, 1903. Granted by Bureau letter of May 9th, amended so that it shall be for thirteen days only.

Eager, J. M., Passed Assistant Surgeon. Granted leave of absence for two months, from August 1st.

Gardner, C. H., Passed Assistant Surgeon. Granted leave of absence for seven days, from June 11th.

Lloyd, B. J., Assistant Surgeon. To report to Passed Assistant Surgeon R. Blue, Plague Laboratory, San Francisco, Cal., for temporary duty.

McConnell, A. P., Acting Assistant Surgeon. Granted leave of absence for two days, from June 10th.

Mason, W. C., Acting Assistant Surgeon. Granted leave of absence for seven days, from June 11th.

Parker, H. B., Passed Assistant Surgeon. Directed to report at Washington, D. C., for temporary duty.

Rodman, J. C., Acting Assistant Surgeon. Granted leave of absence for thirty days, from June 20th.

Vogel, C. W., Assistant Surgeon. Granted leave of absence for one month, from June 8th.

Walkley, W. S., Acting Assistant Surgeon. Granted leave of absence for seven days, from June 11th.

BOARDS CONVENED.

Board convened to meet at San Francisco, Cal., June 8, 1903, for the physical re-examination of an officer of the Revenue Cutter Service. Detail for the board, Assistant Surgeon Carl Ramus, chairman. Assistant Surgeon C. W. Vogel, recorder.

Board convened to meet at Washington, D. C., June 10, 1903, to review testimony and make recommendation in case of Assistant Surgeon F. J. Thornbury. Detail for the board, Assistant Surgeon-General W. J. Pettus, chairman; Surgeon H. W. Sawtelle; Surgeon D. A. Carmichael, recorder.

Marriages and Deaths.

Married.

Adams—Appold.—In Baltimore, Maryland, on Wednesday, June 10th, Dr. James Frederick Adams and Miss Nelline Bland Appold.

Dolan—Ruiz.—In Brooklyn, N. Y., on Wednesday, June 10th, Dr. Edward Thomas Dolan and Miss Fayetta Ruiz.

Getman—Fowle.—In Newburyport, Massachusetts, on Wednesday, June 10th, Dr. J. Edgar Getman and Miss Edith Chase Fowle.

George—Halley.—In Ann Arbor, Michigan, on Thursday, June 11th, Dr. Conrad George, Jr., and Miss Katherine Halley.

Johnston—Newlands.—In Washington, D. C., on Wednesday, June 10th, Dr. William Bernard Johnston and Miss Janet Newlands.

Packard—Croucher.—In Boston, Massachusetts, on Thursday, June 11th, Dr. George Henry Packard and Miss Miranda Croucher.

Pratt—Gilbert.—In Brooklyn, N. Y., on Wednesday, June 10th, Dr. Henry Bell Pratt and Miss Ruth Hogoboom Gilbert.

Roberts—Martin.—In Washington, D. C., on Wednesday, June 10th, Dr. Ernest Edwin Roberts and Miss Grace May Martin.

Tilney—Hurley.—In Brooklyn, N. Y., on Monday, June 15th, Dr. Frederick Tilney and Miss Camilia Hurley.

Urquhart—Dunlop.—In Washington, D. C., on Wednesday, June 10th, Dr. Richard A. Urquhart and Miss Helen Dunlop.

Died.

Bastian.—In Clinton, Massachusetts, on Sunday, June 7th, Dr. D. I. Bastian.

Bradley.—In New Haven, Connecticut, on Friday, June 12th, Dr. William L. Bradley, in the sixty-sixth year of his age.

Caldwell.—In Rockville, Maryland, on Saturday, June 6th, Dr. William A. Caldwell, in the forty-first year of his age.

Ruby.—In Louisville, Kentucky, on Sunday, June 7th, Dr. F. W. Ruby, in the thirty-seventh year of his age.

Walker.—In Philadelphia, Pennsylvania, on Tuesday, June 9th, Dr. Faye Walker, in the eighty-fifth year of his age.

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Original Communications.

GONORRHŒA INSONTIUM, ESPECIALLY IN RELATION TO MARRIAGE.*

By PRINCE A. MORROW, M. D.,
NEW YORK.

I have employed the term "gonorrhœa insontium" to designate a certain class of infections which are distinguished by the conditions under which contagion takes place. From a strictly scientific standpoint, such a differentiation is, of course, inadmissible; gonococcic infection is the same, irrespective of the conditions under which it originates. The qualificative "insontium" implies, therefore, an ethical, rather than a medical, distinction. Further, its use embodies the popular conception that the existence of gonorrhœa carries with it a certain stigma; that it is in some sort an opprobrium and a reproach to the bearer and furnishes presumptive proof, at least, of immorality. It is worthy of note that venereal diseases are the only ones that have this moral, or rather immoral, aspect. Without attempting to explain or justify the grouping of a particular class of diseases upon a purely ethical basis, it may be said that as long as gonorrhœa is classed by popular opinion as a shameful disease, we should recognize a distinction between cases in which the disease is contracted by voluntary exposure to contagion, under conditions which society qualifies as immoral, and cases in which contagion is conveyed under conditions which are sanctioned as lawful, honorable and virtuous.

The term "syphilis insontium" has been long consecrated by usage to embrace the innocent victims of this disease. In this category are classed not only cases of conjugal contamination and inherited syphilis, but a vast number of cases of extragenital infections occurring in family life and through various industrial occupations and professional relations. The literature of syphilis insontium is large and constantly increasing, so that, at the present day, syphilis is not regarded as necessarily a venereal disease.

Gonorhœa more nearly conforms to the type of a venereal disease, having its almost exclusive origin in the venereal act; yet it is often innocently acquired. Certainly no moral stigma should attach to the innocent victims of this disease when contracted under the sanctity, and what should be the safeguard, of the marriage relation.

COMPARATIVE SIGNIFICANCE OF GONORRHŒA AND SYPHILIS AS SOCIAL DANGERS.

While gonorrhœa cannot claim the multiple and varied modes of syphilitic contagion and is not susceptible of hereditary transmission, yet, owing to its much greater frequency, its prolonged latency, the insidious character of its infection in married life, and its effects upon the health and conceptional capacity of the woman, it is quite as formidable a social plague as syphilis.

Unquestionably, the most sombre chapter of syphilis insontium is the murderous influence of the disease upon the offspring, but the no less pernicious effects of gonorrhœa upon the procreative function, its inhibitory influence upon the perpetuation of the species, which is the primary and fundamental basis of the institution of marriage, are by no means adequately appreciated. Syphilis destroys the product of conception or blights its growth and normal development. Gonorrhœa is more radical and effective in its action; it renders null and void the procreative process by mechanical obstruction of the seminiferous tubes or oviducts or by rendering sterile or unproductive the culture field of the ovum. Gonorrhœa absolutely prevents what syphilis maims or destroys.

We have long been accustomed to look upon syphilis as a serious social peril, both from its individual risks and from its morbid irradiati
the family and social life; hence the
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* Read before the American Academy of Medicine, at Washington, D. C., May 12, 1903.

other hand, we have been accustomed to look upon gonorrhœa as a local disease, trivial in character, of limited duration, and its important relations with marriage have been, until within recent times, unrecognized and, even now, are too often entirely ignored.

When syphilis is introduced into the family, the situation, though bad enough, is not without hope. All the possibilities promised by marriage are not irrevocably lost. After the first series of explosive violences are expended upon the offspring, there is still hope that under the attenuating influence of time and treatment the virulence of the diathesis will be exhausted, and the results, so far as the procreation of healthy children is concerned, may be as if the disease had never existed. But the introduction of gonorrhœa into married life entails consequences infinitely more disastrous to the health and life of the mother. She may be rendered a lifelong victim and her hope of children absolutely extinguished. When the gonorrhœal infection invades the annexial organs, determining obliterations, adherences, deviations, etc., these changes are final and irremediable; the woman becomes irrevocably sterile, not to speak of the danger to her life which, in many instances, can only be averted by the sacrifice of her reproductive organs.

We are accustomed to look upon syphilis as the most active cause of depopulation, but gonorrhœa is the much more powerful factor. Janet, in discussion "social defence against the venereal peril," recently (1902) declared "that gonorrhœa with tuberculosis, perhaps more than tuberculosis, is the great pest of our age. If we compare from a social point of view the importance of gonorrhœa with that of syphilis, gonorrhœa is to syphilis as 100 is to 1, not only from the standpoint of the number of persons attacked, but also from the standpoint of the gravity of the lesions and their perpetuity. Gonorrhœa modifies in a manner, often permanent, the genital organs of patients, renders them infinitely dangerous for the women they approach, causes all the metritides and annexial inflammations which to-day give to surgeons three quarters of their work, and conducts finally both men and women to sterility."

The predominance of gonorrhœa as a cause
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upon diseases of women recognize that gonorrhœa is the chief determining cause of the inflammatory diseases peculiar to woman. Syphilis, on the contrary, while it owes its genesis in the majority of cases to inoculative contact of the genital organs, is in no sense a genitourinary disease. "It is only genital in its approach, and not at all in its manner of expression" (Keyes). Syphilis is a disease of the general system; its most essential lesions are in organs quite remote from the genital sphere; its effects upon the generative organs are the result of the nutritive disorders which affect the general system.

We may ask, Why this disparity in the relative importance assigned to syphilis and gonorrhœa in their relations to marriage? One reason is the greater dread which syphilis has always inspired, on account of the more formidable character of its manifestations compared with the relatively mild and apparently harmless symptoms of gonorrhœa. The true explanation of this disparity must be sought for in the lack of the coordinate development of our knowledge of these diseases, or rather in the limitations of our knowledge respecting the pathogenic rôle of the gonococcus, and especially the fact that gonorrhœa in women has never been carefully and completely studied until within recent years. The attention of pathologists was almost exclusively devoted to masculine gonorrhœa; our knowledge of feminine gonorrhœa is essentially a modern acquisition. Many inflammatory affections of the female genital organs were referred to simple causes or regarded as peculiar to woman by virtue of her physical organization and the physiological functions peculiar to her sex. The modern period of our knowledge begins with the discovery of the gonococcus.

In this paper attention will be briefly directed to the three principal modes in which gonorrhœa insontium is manifest in married life: (1) The individual risks to the health and life of the woman; (2) its effect upon her conceptional capacity; (3) its effect upon the infant in the production of abortion and ophthalmia neonatorum. To these dangers may be added (4) the vulvovaginitis of young girls which often results from the introduction of gonorrhœa into the family.

RISKS TO THE HEALTH AND LIFE OF THE WOMAN.

With the discovery of the gonococcus by Neisser it became possible to trace the pathogenic influence of the germ by its identification in many local and systemic disorders which it occasioned. Even before the discovery of the gonococcus, Noeggerath, with a prescience which can be considered scarcely

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less than intuitive, recognized the pathogenic influence of gonorrhœa upon the pelvic organs of women, and, reasoning from effect to cause, boldly incriminated the latent urethritis of the male as the active factor in the production of these inflammations and the oft-resulting sterility. The vagaries of Noeggerath, as they were then considered, have become, with some modifications, the accepted facts of science to-day. Indeed, subsequent investigation has rather broadened than restricted the pathogenic influence of the gonococcus in the causation of pelvic inflammations.

As it is intended to touch lightly upon the pathology of gonorrhœa, only the profound manifestations of the disease will be here considered.

In women the primary infection is more often localized in the deep parts, which is explained by the physiology of coitus, the germs being deposited in the uterine neck at the moment of ejaculation. Our knowledge of the habitual cervical localization of primary gonorrhœic infection is essentially modern. To this lack of knowledge must be attributed the fact that the frequency of gonorrhœa in women was so long overlooked, unrecognized, and unstudied. Undoubtedly it represents the most serious form of gonorrhœa in women, not only from the standpoint of its insidious infection, its failure of recognition and treatment, but from the fact that it constitutes a point of departure for infection of the fundus of the womb and the annexial organs.

Another peculiarity of gonorrhœa in women is the torpid, non-acute character of the primary process. In the majority of cases the infection is established insidiously without acute symptoms; either of a subjective or an objective character, so that, as a rule, gonorrhœa in females presents itself as a chronic affection, either from the rapid subsidence of the acute symptoms or because it may develop *d'emblée* as a chronic process.

It is asserted that the abundant seromucous secretions (the little lochia) which immediately follow the menstrual period constitute an admirable culture field for the gonococci; not only is there multiplication of gonococci, but there is a tendency to invade the body of the womb, owing to the modifications in the uterine mucosa, and perhaps, also, to the more open and patulous condition of the os internum, which opposes less resistance to the entrance of the microbes.

When a gonorrhœic woman becomes pregnant, the disease, hitherto passive, undergoes a modification more or less marked in its virulence and course. Strumbuhl and others have remarked the frequency with which the first clinical signs of gonorrhœa are coincident with conception. Gottschalk and Immerwahr report cases where, under the influence of pregnancy, there was such a multiplication of diplococci in the cervical secretions that the slide preparations gave the illusion of a pure culture.

While there is no positive means of ascertaining how far the gonorrhœal process may gain in extension during the course of pregnancy, there can be no doubt that with the termination of pregnancy, whether it be in abortion or in accouchement at full term, there is communicated a powerful pathogenic impulse to the upward ascension of the infection. In the large majority of cases pregnancy is the pivot upon which hangs the destiny of the woman, so far as the extension of the infection to the womb and its annexa is concerned. All investigators who have had occasion to examine the lochial fluids unite in attesting that, immediately after confinement, even as early as the second day, there is an extraordinary multiplication of the gonococci. The lochial fluid is an excellent culture medium, and the gonococci are found almost in pure culture. Not only are the gonococci multiplied in number and exalted in virulence, but the way is opened for ascending infection and the soil prepared by the process of parturition.

INFLUENCE OF GONORRHŒA UPON CONCEPTIONAL CAPACITY.

The influence of gonorrhœal infection in woman upon her conceptional capacity and upon the course and termination of pregnancy, is of special interest from the view point of race perpetuation. It has long been known that gonorrhœa has an inhibitory influence upon the reproductive capacity of a woman. Noeggerath has asserted that 50 per cent. of sterility in women is caused by gonorrhœa; Neisser declares more than 50 per cent. of the voluntary childless marriages and limitations of the number of children are due to gonorrhœa and its sequelæ in men and women. Lier-Ascher found that, out of 227 women, 121 were sterile because of gonorrhœa. Numerous other authorities might be quoted showing that a large percentage of sterility, as well as of abortions, are due to gonorrhœal endometritis of the cervix and body of the uterus.

In explanation of the pathogenesis of sterility much importance was formerly attached to the morbid condition of the mucosa of the uterus, wh
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contact with the spermatozooids. Before these profound alterations in the channels take place, the gonorrhœic woman may conserve her conceptional capacity. A woman with gonorrhœa of the cervix may readily conceive; conception may take place when the gonorrhœa is acute, with a profuse purulent discharge. Fecundation may even take place when the uterine mucosa is infected. Gonorrhœal salpingitis does not necessarily inhibit conception unless the channel of communication through the ostium uterinum is closed. Brothers reports two cases of women with pus tubes (bilateral salpingitis), the husbands at the time suffering from gonorrhœa, who gave birth to several children. Unfortunately, in the majority of cases the first pregnancy, terminating either in abortion or accouchement, opens the gates to the infection which may have long existed in the cervix or the external genital canal, and admits its ascension to the ovaries, tubes, and peritonæum and the production of the changes which constitute a mechanical obstacle to the passage of the ovum. These changes are, as a rule, permanent and irremediable. It thus happens that the aptitude of the gonorrhœic woman for conception is often extinguished by the first pregnancy, the first child representing the sum total of her productive energy. The sterility of the gonorrhœic woman is thus relative rather than absolute. It is, in the expressive German phrase, *ein kinder sterilität*—a one-child-sterility.

The influence of gonorrhœa upon the course and termination of pregnancy is of importance in this connection. Sänger contends that the abortive influence of gonorrhœa is quite as pronounced as that of syphilis. While this statement is perhaps overdrawn, yet clinical evidence shows most conclusively that there is an abnormal frequency of abortions among gonorrhœic women who have become pregnant. Noeggerath found that of 53 women who became pregnant during the course of gonorrhœa, 19 aborted. Fruhinsholtz found that of 101 pregnancies occurring in gonorrhœic women, 71 went to full term, 23 terminated in abortion, and 7 by premature accouchement. In a number of these cases the presence of the gonococci was demonstrated in the residual placental *débris*, furnishing presumptive proof that it was the direct cause of the abortion.

The frequency with which these annexial com-
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port of the special committee of the American Medical Association, in 1901, which gave the opinion of the leading gynæcologists in this country and Europe as to the "proportion of cases of pelvic inflammation coming under your care which were attributable to gonorrhœal infection," there was found to be a wide difference of opinion as to the proportion attributable to this cause. Some operators gave their opinion that 90 per cent. were of gonorrhœic origin. Price says that, in over a thousand sections for pelvic inflammation, 95 per cent. were attributable to gonorrhœa, and that in these 95 per cent. the history was reliable and clear. Pozzi and Frederic gave a percentage of 75. A few of the estimates fall below 20, and the majority range from 23 to 95 per cent. The average of the entire statistics is 47 per cent. The exceedingly small percentage given by some of the reporters may have been due to the failure to make the bacteriological test for the gonococci, or perhaps, in some instances, to a lack of technical skill or to faulty methods in making this investigation. As Petersen says, "the more the disease is studied in women and the greater the improvement in bacteriological methods, the higher is to be found the percentage."

These statistics, be it understood, give no accurate idea of the prevalence of inflammatory diseases of the female generative organs due to gonorrhœa; the percentages are for the most part based on cases requiring operative interference. They take no cognizance of the large number of gonorrhœally infected women who, for various reasons, are not subjected to operation, and who continue under the care of the family physician, dragging out a miserable existence of semi-invalidism, subject to painful or difficult menstruation, with suppurative exacerbations, no longer able to walk freely, and condemned to pass their days of suffering in a reclining position, until, after several years, it may be, of this suffering, worn out and desperate, they apply to the surgeon for relief.

The bearing of these observations upon the question of the low fecundity of married women is obvious. In this country the question of the low birth rate has assumed the importance of a national problem which has engaged the thoughtful attention and study of some of our most distinguished educators, sociologists and statesmen. Its designation as "race suicide" would favor the assumption that the low birth rate is in all cases voluntary and independent of physical causes relating to the health or productive capacity of the married partners. There is ample reason for believing, however, that in a large proportion of cases the low birth-rate is not a result of choice but of incapacity. In this country the information derived from the Census

Bureau Reports is worthless as a basis for the appreciation of this question, as they do not give the proportion of sterile marriages to the whole number of marriages or to the general birth rate or fecundity of the population. In certain European countries, where the statistics are compiled with more accuracy and with special reference to certain economic interests which are ignored by our Census Bureau, it has been found that the proportion of sterile marriage is about one in eleven.

The Census report of 1900 has not yet furnished data as to the conjugal condition of the population. The Census of 1890 gives thirty-two million married people, which would represent sixteen million marriages; at least one out of every seven is sterile. In different parts of this country the proportion is one in four or one in five.

No one knows better than the writer of this paper that the proportion of sterile marriages due to gonorrhœa is an unknown and unknowable quantity; that it is impossible to present figures that aim even at approximate accuracy; but, from the mere statement of the fact that there is such a vast amount of sterility, and that gonorrhœa is a common and most efficient cause, we can but conclude that the proportion due to this factor must be considerable.

There are so many pathogenic causes of a local or constitutional nature assigned as the cause of sterility, so much artificial sterility in which the marriage is childless by the choice of the parties conjoined who take precautions to frustrate or defeat Nature by avoiding pregnancy, that it is impossible to determine whether the sterility is from incapacity or from choice. In looking over the statistics of the birth rate in this country, we are impressed with the large percentage of marriages in which one child represents the total fecundity. Now, this is most significant in view of the fact that this is precisely the form of sterility for which gonorrhœa is directly responsible, viz., one-child-sterility.

Abstraction made of every other possible factor of sterility and minimizing gonorrhœa as a predisposing agent to the lowest possible degree, yet there must remain a vast contingent of sterile marriages which are caused directly and solely by gonorrhœal infection. If "premeditated childlessness is a crime against society," as recently asserted by a high government authority, what shall be said of enforced childlessness, of the sterility which is not of choice but of compulsion; of the sad fate of women balked of their desire to have children by the disease of their husbands?

It is only in the confessional of the consulting room that one learns of the intense, unsatisfied craving on the part of many women for children, and of the wretchedness and disappointment they suffer when condemned to pass their existence in a childless wedlock. The instinct and craving for maternity becomes in some women a veritable obsession. They will at any cost of time and pain and suffering submit to any treatment which promises relief—curetting, division of the cervix, and even more formidable operations upon their pelvic organs. And the satire of it all is that in many cases the husband, inflated with the sense of his own virility, is himself responsible for the sterility!

The proportion of sterility due to the husband is said by Gross to be 17 per cent. Brothers, in his investigations, found that it was 20 per cent. Engelmann is inclined to place it at one in four, or 25 per cent. And it is to be remembered that almost the entire proportion of sterility in woman is due to gonorrhœa communicated to her by her husband.

(*To be concluded.*)

STATE CARE OF THE FEEBLE-MINDED.*

By MARTIN W. BARR, M. D.,
ELWYN, PA.,
CHIEF PHYSICIAN TO THE PENNSYLVANIA TRAINING SCHOOL FOR FEEBLE-MINDED CHILDREN.

Before entering upon the topic assigned me, I must thank you for the pleasure of meeting this association, and also for the privilege—most highly esteemed—of uniting in a work preeminently worthy of a State, the record of which is that of a builder and defender of homes.

Of the three classes demanding care and protection from the State—the insane, the defective, and the criminal—the first and last have for obvious reasons received earliest attention, and of the second, the blind and deaf mute have appealed most powerfully to the sympathies of the humane. Mental defectives have, therefore, been the last to be considered. Very inadequate provision has been made for them in the county homes, in asylums for the insane—with whom they are too often confounded—in institutions for the blind and deaf mute, whose methods in no wise meet their needs; or, sadder still, as innocent victims of neglect, they wander at large, the tools and agents of the vicious, multiplying their kind; or perpetrators of misdeeds for which they are in no sense responsible, they have been thrust into houses of correction o
with hardened criminals our jails and peni

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* Read before the Virginia C

source of supply, increasing without intermission both the insane and the criminal ranks; a great reservoir, so to speak, drawing continually from the overflowing springs of a highly nervous age, and extending perpetually its own limits and those of the streams it feeds. The necessity to public safety for cutting off supply, or at least putting some check upon this evil, has become apparent to many thoughtful minds.

In entering upon the work just at this stage of its history, after its hundred years of experimentation and research, Virginia has the advantage not only of profiting by the experience, but of avoiding the mistakes of her sister States, and also of materially aiding a new era of work.

Within a decade, on the Continent, in England and, finally, in America, there has been a general awakening to the necessity of legislative intervention, not so much for the benefit of the abnormal, as for the protection of the normal portion of society. Experience, that best of teachers, has made it clear that the one great aim of the work is not cure—that is impossible; we cannot cure that which is defect, not disease—but a threefold protection; protection of the helpless from want and suffering; of the irresponsible from ignorance, vice, and the penalty of crime; and protection of the family and the State from the evils of association and of certain increase. The work, therefore, takes a totally different trend from that of its beginning—makes a new departure, in fact. In place of gathering in from waste places or crowded alleys the defective, it consists in going into the schools; first, to separate the healthful from the defective growth, rank in all classes and hindering the progress of normal education; next, to provide for the defective that special treatment which shall arrest further deterioration and conduce to that limited development of which he is capable.

But the movement has not yet formulated its ultimate plans, and it is for those just entering into the work—you, the far South and Southwest and the southern countries of Europe—to lead in this by recognizing the importance, not only of separation and segregation, but of making this separation permanent, and of securing in the outset of your labors legislative action to that effect. If
do, I venture to prophesy you will soon be
us who, in bearing the brunt of experi-
have yet left for you to show a more

and Italy, late in the field, are
lines at the instance, not so
as of pedagogic science, the
ndents of instruction re-
support of the ministers of education. In Rome already is the second step proposed of sifting out, after a sufficient period, the absolutely defective from the merely backward for special training, and of establishing there a national institution for mental defectives.

While this will be the natural drift in time with us also, the movement would undoubtedly be quickened by compulsory laws, were the public once fully awakened to its necessity through a consideration of statistics. Italy deplores that only about 1,000 of her 24,000 mental defectives are being cared for. Our very imperfect census reports gave, some ten years ago, 75,000 in the United States; unacknowledged and unrecognized, such as backward or epileptic children, then combined to swell the number easily to 100,000—and that before our recent acquisitions and annexations. Of this number not over 9,000 are gathered into schools and institutions, and they are subject to withdrawal at any time, the law not yet recognizing that this exercise of individual liberty affects the well-being and safety of many, or that a large proportion of those now dependent upon the bounty of the State are the innocent victims of a fateful heredity. Interested in this subject of causation, I have carefully studied 3,050 cases. One thousand nine hundred and seventy-eight, or 64.85 per cent. of these were due to causes acting before birth, and 835, or 27.38 per cent., showed a family history of idiocy and imbecility. Not even the much discussed causes of intemperance and consanguinity approached this, the former being only 136, or 4.46 per cent., and the latter but 41, or 1.34 per cent.

Surely this should be a forcible argument for forbidding the return of the imbecile to the world and for assuring, by segregation and sequestration, that permanent good to society which best justifies the expenditure of public funds.

In thus approaching the subject from the standpoint of public utility, not only do you engage the attention of every good citizen by making it a matter distinctly his own, but, being forced to consider the greatest good to the greatest number, you avoid the mistake and danger of drifting into sentimentality so often attendant upon the viewing of one phase of an evil, thus cramping or dwarfing your own efforts. To explain: Legislatures have been in the past quite ready to vote public moneys for the housing of the comparatively harmless idiot whose helplessness appealed to their sympathies, while they were not so ready to provide for training and placing under guardianship the brighter imbecile who, destitute of will-power or the moral sense, was quite capable of murder, burglary and arson.

The result of such misconception has been the passing of a "managed" bill, setting afloat a mingled project of unmixable materials, a training school hampered with untrainables, an asylum run on needlessly expensive lines, the untrainable inmates crowding out those who, capable of improvement and of becoming useful members of community life, thus excluded from the benefits of the training school, remain a burden in the homes or a festering sore in society. This assuredly is not securing the greatest good to the greatest number. No, to attain this, society has to weigh its own right of self-preservation, its protection from contamination, and the rights of the mental defective to claim at our hands opportunity for the development of his feeble powers and that limited degree of happiness which he is capable of enjoying. Norway and Saxony are the two countries of Europe in which this is recognized—the law of compulsory education there applying also to the imbecile, a certain amount of oversight being given after training.

Of the three classes with which we deal in this connection, the untrainable idiot, the trainable imbecile, and the cunning and treacherous moral imbecile, the idiot is the least harmful and the one most easily disposed of. Insensible of the pleasures of the homes they burden, an asylum in which they may find care and kindly mothering is the solution of the problem for them. Absolutely untrainable, unimproveable often, even in habits of self help, they, whether apathetic or excitable, are equally indifferent to the ties of home or of kindred, and require but little besides attention to physical needs. A sufficient corps of capable attendants under experienced direction, and the daily inspection of a physician would meet these requirements. As there would be no necessity for teachers or school equipment, such an establishment could be run very comfortably on a comparatively moderate income. Idio-imbeciles and low grade imbeciles may be made useful in such asylums, as aids in household service and in the care of the helpless; and here, too, the adult imbecile, past the age for training, could find a peaceful life home.

Very different from this monotonous routine is the atmosphere of a training school for imbeciles and backward children. Work and amusement and rest have a part to accomplish in the arousing of sluggish natures to new life. Here are five grades of human beings as distinct in characteristics as though they represented so many nationalities; and yet these differences often shade off and so commingle that only the eye of an expert may sort out and distribute them in such manner that each may go to his own place and receive that training which shall determine his life's work.

Thus, for example, experience has proved that the mental limit of a low grade imbecile is a preparation for the simplest menial occupations of house, farm, and garden. The middle grade may attain to a greater degree of efficiency in industrial service and in the manual work of the shops.

The high grade, approaching the normal and capable of the intermediate course of the public schools, may be fitted for yet more responsible occupations through the medium of the arts and crafts, and may be trained for musicians, cabinet makers, printers, carpenters, painters, typewriters, tailors, and seamstresses. These duties they enter upon as apprentices after development by means of special and varied occupations for years in the schools. Do not misunderstand me that our schools are trade schools. No. Rather do they partake of the industrial and manual training given in ante bellum days on the plantations, which were, in fact —as the world is fast coming to acknowledge—training schools for a backward race, many of whom were feeble minded. You cannot take a mental defective and put him to one thing or part of a thing without defeating your object and deadening instead of awakening his faculties. You can only fix the wandering gaze and chain attention by exciting interest, and that you cannot hold for long periods.

We must never lose sight of the fact that we are dealing with children, of whatever age; be it six or sixty years, they are still children, and the brain once wearied will not respond. Variety, however slight, effects the object, but there must be variety. Thus, the child comes from modelling in clay to modelling in wood, still studying form, but rested and refreshed by the change. So also in knitting, weaving, or blackboard exercises; he is doing number work all through, but unconsciously and unweariedly, because diverted. This whole scheme, gradually evolved through practice and then modified to meet new demands, may perhaps be made clearer to you by a tabulated form:

EDUCATIONAL CLASSIFICATION OF THE FEEBLE-MINDED.

Asylum Care.	IDIOT.		
	Profound	Apathetic Excitable	Unimprovable.
	Superficial	Apathetic Excitable	Improvable in self-help only.
	IDIO-IMBECILE.	Improvable in self-help and helpfulness. Trainable in very limited degree to assist others.	
Custodial Life and Perpetual Guardianship.	MORAL IMBECILE.	Mentally and morally deficient. Low Grade— Trainable in industrial occupations; temperament bestial. Middle Grade—Trainable in industrial and manual occupations; a plotter of mischief. High Grade—Trainable in manual and intellectual arts, with a genius for evil.	

Long Apprenticeship and Colony Life Under Protection.	IMBECILE. Mentally deficient. Low Grade—Trainable in industrial and the simplest manual occupations. Middle Grade—Trainable in manual arts and the simplest mental acquirements. High Grade—Trainable in manual and intellectual arts.
Trained for a Place in the World:	BACKWARD OR MENTALLY FEEBLE. Mental processes normal, but slow and requiring special training and environment to prevent deterioration; defect imminent under the slightest provocation, such as excitement, overstimulation, or illness.

Now all this demands a great variety in the teaching staff—in reality a number of schools, and also good physique and originality in the teachers, variety of school material, room and ample space; in a word, a plant, and that is, of course, expensive. Now let us see if results justify expenditure.

A typical training school started with proper appliances, unencumbered by dead wood — adults, idiots, or even epileptics—and consisting of, let us say, 500 trainable imbeciles with a fair average of grades, ought, in from eight to ten years, to have its own force of laborers and artisans—working under supervision, of course—and thereby reducing expenses. This once attained, it could then supply asylums with aids or draft of members for independent colonies, if this arrangement could be made permanent by law; for just here comes the loose screw which makes the whole work truly "*imbecillis*"—tottering. We are working, first, to withdraw from society a pernicious element and to prevent its increase; secondly, to awaken deadened senses, to transfuse new desires into brutish instincts, and to give an aim to aimless lives. To accomplish this requires an atmosphere, first, of comfortable living in accordance with hygienic laws; next, as I have shown, variety of occupation —work, rest, and amusement constantly alternating. Many thus trained enjoy the library, the theatre, gymnasium, or find their best recreation in the practice of drawing, modelling, or music, and, in association with refined people, have attained somewhat to a life of culture. Now all these things are proved necessities in our scheme of development, fitting the children for community life and making the talent of each contribute to the comfort or the pleasure of the whole, and sustaining and upholding it in so doing; compared with normal labor in the world, their work would not be of the same value. But friends come, and, dazzled by this bit of work or that accomplishment—unconscious of all that is lacking, unwilling to believe that it requires for the training of an abnormal child a period and labor four times greater than that for a normal one, or that they are incapable of withstanding fatigue or discouragement—they withdraw them.

Then the training which was a benefit to community life proves a menace to society. The almost certain result is marriage and increase; for imbecility is there, imperceptible to the public eye it may be, but unmistakable and transmissible and sure to reappear. The pains we have taken to train for useful community life have but intensified the danger to society and defeated our entire scheme —our work is nullified and increase goes on.

This is not all, for the same lack of legalized separation leaves another open door through which the criminal, rendered more expert by training, returns to the world.

I have told you of idiocy, of idio-imbecility and of three grades of imbecility, but I have not yet spoken at any length of that very peculiar type, the moral imbecile, found in all three, but chiefly in the higher grades, rendered tenfold more dangerous by his wit, his duplicity, and his close approximation, mentally and physically, to the normal, while lacking entirely in the moral sense. One is reminded by him of the house swept and garnished; for often into an attractive, almost a perfect, human mold—a fatal inheritance—one is willing to believe seven devils have entered, so varied are his gifts for evil doing.

In order properly to handle this type, found in most institutions for the feeble minded, custodial buildings are necessary. These should be fitted with every appliance for comfort, for exercise, and for free life within carefully guarded enclosures. Workshops and gymnasia should provide constant employment and vent for nervous energy, and amusements compensate for life separation from the world to whose peace he is a constant foe.

It is useless to preach reform—there is nothing to appeal to. The moral imbecile is as completely lacking in moral intelligence as the idiot is in mental. He simply loves darkness rather than light, because his eye is evil. In other words, he is "moral blind," just as people are "color blind."

Accomplished liars, adroit burglars and thieves, they steal, not from acquisitiveness, but for the excitement of successful thieving. This accomplished, the article, valueless to them, will be destroyed or thrown aside, often passing through half a dozen hands before it is traced and recovered. These are the characters who live double lives, such as one finally secured by the police this winter in one of our large cities. A partner in a reputable business firm, at his desk regularly by day—at night a successful burglar; he had for years been successful in eluding punishment. Much the same temperament and, I might say, genius, is evidenced in many of my boys; in one in particular, whose progress in school and persistent effort under difficulties led his teachers to trust him above others in his class, indeed in the care of school material he often proved in a quiet way an excellent detective. Suddenly an unforeseen accident brought about an investigation of his pockets, in which were found several bolts of ribbon. When questioned as to why he wanted to take such, to a well-grown boy of eighteen apparently useless, articles, he replied, coolly: "Oh, just to give 'em 'round." This was untrue, for it was proved that for months he had been stealing and scattering his pilferings through the woods or burying them out of sight. He had picked the lock of an attendant's room, broken into a strong box, stolen a clock and buried it. All this must have been accomplished very rapidly, for no boy can be absent long from his club without being subject to search and recall. Further investigation showed his influence over weaker boys to be so pernicious that, notwithstanding his capacity for training—he would in time have made an excellent carpenter—I was reluctantly forced to remove him to a custodial building. Here he exhibited the same ability to ingratiate himself with the people in charge, and he then immediately proceeded to steal from them. His next escapade was successfully to plan an elopement in company with two other boys while they were exercising in charge of an attendant. Wandering on the streets of Philadelphia they were overheard discussing the possibility of a successful raid on a shop window, when a friendly policemen on the lookout for them made a counter raid and returned them to our care.

Here is a character ever on the alert for evil. If the opportunity is not presented, he creates it. He says that he would "set buildings on fire just to see 'em burn," and he would kill somebody "just to see the blood," and he is perfectly capable of planning successfully a conflagration or a brutal murder. Fortunately, he has been recognized as an irresponsible before society had to suffer in proving him such. Relatives may yet appear to claim him. And then what? He is a waif and stray with no mother's heart to break, as far as we know; but he is a fine-looking fellow with rather an attractive personality, quite sufficient to break other hearts; and there is no law of protection for either—no way or device except what the penitentiary would inevitably afford.

In the Pennsylvania penitentiary at the present time is a boy who, had he been recognized and early placed with us, would now be happy with comrades in a free life in the open, and his victim, the baby boy whom he first tenderly carried on his shoulder into the wood and then murdered, would be living to-day, the joy of his home circle. I was called to examine him and to testify at the trial as to his mental condition, and have never known a case that appealed more to my sympathies. In this lad of fifteen were to be found all the stigmata of that degeneracy which both congenital and accidental causes had combined to foster. A family history of idiocy and insanity: the father an imbecile; the mother, the burden bearer of the family, had received a sudden shock at the time of his birth, and he himself had known all the diseases of childhood.

On entering his cell one day I found him crying bitterly over the torn dress of a paper doll. To his love for children and for animals the neighbors testified, and he told me of a squirrel that his sister wanted him to kill and how it looked at him with its bright eyes, and "Oh, I couldn't, I couldn't," he said. "But you killed Percy?" "Oh, yes," he replied, "that was different." Then he went on to tell of how they were playing "Wild West," and he held the knife open while Percy ran down the hill against it. Then how he stabbed him again and again until "he just stretched," and then getting scared he dragged him to the creek, piled large stones on him, and ran home, and, as evidence afterward proved, made the fire and got supper.

These are not exaggerations but typical examples of a class unrecognized or misunderstood. In two of these, society has paid a heavy penalty for ignorance and nonintervention; in the other, early sequestration has secured alike to the individual and to society immunity from ill. And clearly such lives must be protected from the world, and the world from them, their only true freedom lying in legalized detention and prevention.

The transferrence of the backward child from the schools to special classes must lead, after satisfactory testing, to a second and final sifting out from these classes, of those there adjudged defective by competent teachers and physicians. All such children should then be assigned to such institutions, public or private, as may meet special needs. *Received there under conditions dictated by science and already proved by experience as best insuring at once safety to society and greater freedom, and consequently greater happiness, to community life,* they should become the life wards of that or of any other institution to which, after training, they might be transferred.

What to do with the trained imbecile is already a question, and with increase of training schools reduplication of numbers will soon press home upon those in charge. The natural solution will be colonies which will relieve congested conditions and gratify the natural longings for change. Laborers and artisans, coming trained from the various schools, might be able to supply many of the needs of such colonies, and under a wise paternalism and supervision fill out their brief period of life work and life happiness and leave no remnant of ill behind.

Such a life the community of Shakers once enjoyed in the beautiful Genesee Valley; being celibates, they have passed and their settlement at Sonyea is now a colony for epileptics under State control. In the far West or on the Atlantic seaboard, in the mountains of your own State or the Carolinas, such a colony might be advantageously placed, and the national government, which is caring for the deaf-mute, the Indian, and the negro, might in this way provide for this race, more to be pitied, because more helpless than those upon whom so much has already been expended.

INTERSTITIAL OR TUBOUTERINE GESTATION COMPLICATING UTERINE PREGNANCY. ABORTION OF BOTH FŒTUSES THREE WEEKS APART.*

By J. B. MORRISON, M. D.,
NEWARK, N. J.

CASE.—Mrs. ——, aged thirty-three years, married; one child, eleven years of age. History of four abortions since birth of this child. Patient called at my office on September 4, 1902, and reported having a miscarriage the day before. The ruptured ovum and some clots were brought for examination, the patient remarking that because these were so small, she feared "everything had not come away." The specimen appeared to have reached a development of about eight weeks, measuring an inch and a quarter over the curve of the back.

Physical examination revealed a uterus normally situated, large, about the size of an orange. On the right side an ovoid mass was felt. It was about one half the size of the uterus and was directly continuous with it. There was no sulcus into which the examining fingers could slip. This mass was thought to be a mural fibroid, or an old inflammatory trouble, probably a pyosalpinx which had resulted in adhesions between the tube and the uterus. The cervix was soft and admitted the tip of the index finger readily.

Contrary to advice the patient went away to the country the next day. She returned in fifteen days with a history of a chill, fever for two or three days, and the presence of a scant, foul smelling discharge.

Cleaning out the uterus was advised, and the next morning, under anæsthesia, curetting was performed. Some clots and shreds of decidua were removed, and a hot solution of potassium permanganate was used for irrigation.

Two hours later the nurse reported that the patient had had a severe chill, and the temperature rose to 105° F. Pulse, 100. In the afternoon a second chill ushered in a rise of temperature from 102° to 105.5° F. Intense, agonizing pain now developed on the right side of the pelvis, localized over the site of the tube and ovary. This pain was so intense that the patient had to be restrained from throwing herself out of bed before my arrival.

Against my better judgment I was compelled to resort to the hypodermic use of codeine, and later on, of morphine.

An ice bag had been kept over the site of the uterus following the curetting, and this was exchanged for an ice water coil after the chills ceased. The temperature fell during the night to 101° F., and the pulse rate to 88. In the morning, however, eighteen hours after the curetting, the temperature rose again to 105°, and the pulse to 100. The pain, which now for the first time was paroxysmal in character, became as intense as ever. Examination was difficult, almost impossible, on account of the extreme abdominal and vaginal tenderness, and no information could be elicited from this source. There was no hæmorrhage and practically no discharge.

I feared very much that I had either perforated the septic uterus with my curette, or that we were dealing with an acute exacerbation of an old pyosalpinx, which had been aggravated by the abortion and subsequent curetting.

The successive chills, the remissions of fever, the coated tongue, the flushed face, the dry skin, the rigidity of the abdominal walls, the tenderness on pressure, both abdominal and vaginal, and the patient's condition, bordering on delirium, all pointed to a rapidly extending septic peritonitis.

On the other hand, the facial aspect, between the paroxysms of pain, was good. There was a complete absence of that usual anxious, worried look, that drawn expression about the mouth, the short respirations through the partially retracted lips, the play of the nares. There was no trace of beginning icterus. Although the temperature was high, the pulse ranged between 88 and 100, and had never been any more rapid. Its character was excellent. There was no meteorism. Neither nausea nor vomiting was present. The bowels moved without medication, and the urine, though it had to be removed by catheter, was not scanty, and did not contain albumin.

The absence of a history of slight hæmorrhages, the previous freedom from pain, the fact that the mass felt in the pelvis was directly continuous with the uterus, the knowledge of the recent abortion, the presence of fever and the other symptoms simulating a septic state, led me to exclude an extrauterine gestation.

So, while at a loss to account for the state of affairs, unless the old pyosalpinx theory would hold, I concluded we were not dealing with a septic peritonitis resulting from a perforation of the uterine wall, and as a clear indication for abdominal section did not yet exist, the conclusion was reached that the wisest course to pursue was to keep on the ice coil and wait.

For two days the temperature ranged between

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* Reported before the Newark Medical Society, October 14, 1902.

102° and 104°, and was not affected by quinine. The pain still had to be controlled by morphine; but the character and frequency of the pulse did not vary. The patient took nourishment well, demanding it at times, and did not appear to be losing ground. While prepared to make a ventral section, it was decided to wait until these more acute symptoms had subsided.

On the morning of the fourth day I was hastily summoned by telephone. The patient had had a profuse uterine hæmorrhage and was bathed in perspiration. The rigidity of the abdominal walls had disappeared. There seemed to be a complete muscular relaxation. Examination showed that the mass on the right side of the uterus was greatly diminished in size, being probably only half as large as when first observed. During the manipulation of the mass and uterus, a second fœtus was expelled into the vagina.

This could not have been a twin pregnancy, or the uterus would have emptied itself long before, and no fœtus remained in that uterus after the curetting. The fœtus showed a development of about ten or twelve weeks. A portion of umbilical cord, about two inches long, remained attached to it. Two hours after the delivery of the fœtus no placenta appeared, and as a slight but persistent hæmorrhage was continuing, it was decided to explore the uterine cavity.

Anæsthesia was again administered and the cervix more thoroughly dilated. A few clots and shreds of tissue were washed out. Digital examination showed the walls of the uterine cavity everywhere smooth, but on the right side the examining finger passed readily into a cavity, about the edges of which pieces of tissue appeared to be adherent.

This cavity was a little larger than an egg. Two of the diameters could be made out, but not its depth, as the examining finger could not be introduced beyond the second point. On the floor of this cavity the finger slipped over a smooth, rounded mass like the yolk of a poached egg, the edge of which appeared to be uneven and granular. This was the placenta *in situ*. By bimanual manipulation as much of this as could be safely removed was taken away, and the cavity, was irrigated with a normal salt solution at a temperature of 100° F., and flowing under a low pressure. This irrigation was repeated daily for five days, several pieces of placental tissue coming away. A serosanguineous discharge persisted for ten days longer.

The temperature fell to 100.5° the first day. It remained between 100° and 99° for five days more, reaching normal on the ninth day.

The pain ceased entirely after the expulsion of the fœtus into the uterine cavity. This pain was one of the most characteristic features of the case. It was evidently due to the contractions, the attempts at expulsion into the uterus, and to the stretching of the muscular film of tissue that had so long resisted rupture.

We had here been dealing with an interstitial gestation complicating a normal pregnancy. There was a difference of about four weeks in the stages of development reached by the fœtuses. It seems very probable that the impregnations took place about the same time, and that development in the interstitial fœtation continued three or four weeks after the development of the normal uterine gestation ceased.

Beckman divides these cases of interstitial gestation into two groups:

(1) Tubouterine, where the communication with the uterine cavity persists, resulting in an early abortion into the uterus.

(2) True interstitial gestation, in which the ectopic fœtation is separated from the uterine cavity by a muscular sæptum of varying thickness. Natural termination is here impossible, and the pregnancy is interrupted prematurely by rupture, either into the uterus or into the peritoneal cavity, along the line of least resistance.

The case here reported was evidently one of Beckman's latter classification—a pure interstitial gestation. It seems that an internal wall, quite thin, it is true, but still intact, separated this fœtation from the cavity of the uterus. This was apparent by the shreds of muscular tissue about the edges of the orifice. This wall could not have been disturbed at the time of the first abortion, or severe hæmorrhage, and an early expulsion of the second fœtus into the uterine cavity would have taken place.

It was probably perforated or considerably weakened during the curetting, sixteen days after the first abortion, and, partly from internal pressure as development progressed, partly from the contraction of the uterus following the curetting and hot irrigation, was at last ruptured. There had been no hæmorrhages after the first abortion, no severe pain at the time, or any other evidence of rupture. These did not appear until four days after the curetting, or twenty days after the first abortion, and it was during these four days that the patient suffered all the pain referred to above. Had the uterine gestation not been disturbed, or, in other words, had the internal support afforded to this sæptum by the structures of the normal pregnancy not been removed, this interstitial fœtation, in all probability would have ruptured into the peritoneal cavity or beneath the broad ligament.

In discussing these cases of interstitial gestation, Garrigues makes the nice distinction that, while they are properly termed ectopic, inasmuch as the sac is found in an anomalous situation, they are not extrauterine, because the products of fœtation are surrounded by uterine tissue.

A few cases of ectopic gestation in some of its forms complicating uterine pregnancy, have been reported in recent years, but fortunately they are extremely rare. I have under observation a patient who will have to submit to an abdominal section for the removal of an old ruptured tube, and the breaking up of the subsequent adhesions, the result of a ruptured ectopic three years ago. While visiting friends in Norwich, Conn., the patient developed all the classical symptoms of a ruptured ectopic gestation. The condition was not recognized there, and while in this state of partial collapse from concealed hæmorrhage, she was brought by train to her home in Paterson, N. J. Her physician met the party at the depot, and, realizing her condition, hurried her to a hospital. Operation was performed by the vaginal route. A large hæmatocele was incised, the clots evacuated, and among them was found a two and a half months' fœtus. As the hæmorrhage had ceased and the woman was in such a precarious condition, nothing further was done. Four weeks later, while still in the hospital, she aborted, a three months' fœtus being found in the bed after a severe hæmorrhage. Its presence in the uterus had never been suspected.

Walther reported a case where cœliotomy was performed for an abdominal tumor, which was thought to be an extrauterine pregnancy. Upon opening the abdomen a uterus bicornis was found. The right cornu contained a fœtus. Introduction of a sound into the uterus and other manipulations led to the expulsion of the fœtus. The left tube, owing to a recently ruptured tubal pregnancy, was changed into a hæmatocele.

Miller has reported a case of coincident intrauterine and extrauterine pregnancy. A three and a half months' fœtus was found in the bed and the secundines were expressed. Four hours later the patient was seized with intense abdominal pain, went into collapse, pulse 160, respirations shallow, abdomen rigid, tender, and dull. The patient died. Autopsy revealed a ruptured ectopic in the left tube, and among the clots a second fœtus, three and a half inches in length, was found.

In my own case the most puzzling points were the severe pain lasting over a period of four days before rupture, the recent abortion, and above all the chills, fever and other symptoms so closely resembling sepsis, and the absence of hæmorrhages or discharge. Under the existing conditions I did not reproach myself very severely for having failed to make a correct diagnosis.

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THE IGNITION OF ETHER VAPOR IN PRESENCE OF A CLOSED ELECTRIC LIGHT.*

By DWIGHT H. MURRAY, M. D.,

SYRACUSE, N. Y.

I feel that any unusual circumstance connected with an operation or anything bearing directly upon it is worthy the attention of the profession. It is on this account that I report the following occurrence:

On the 19th of January, while engaged in a tedious and difficult operation at one of the hospitals in the city, my attention was taken from my work by a sudden flash of light and some quick movements on the part of the anæsthetist, and I found that the ether vapor had ignited, scorching the hair and eyebrows of the patient, and had burned the skin on his forehead sufficiently to cause quite a marked redness. The anæsthetist reported that, the patient being on the face, he was unable to see the pupil properly, and he had turned on the electric light in order that he might more readily note the reaction of the pupil. The blaze had resulted coincidently with the turning on of the light. There was no exposed fire or blaze in any part of the operating room, and the only conclusion that we could arrive at was that the vapor of ether had ignited from the spark in the electric light burner made when contact took place in the turning on of the light. I have never seen reported or heard of any such accident taking place during the administration of ether, but the fact that it did occur shows that it can and may occur again. This being the case it is well for any surgeon or anæsthetist not to turn electric lights on or off near the vapor of ether, particularly when the room is small and there is a large amount of the vapor of ether in the room, as one can easily see what serious damage might result.

I would also state that it is not so easy to produce a blaze by the turning on of an electric light in the presence of ether when we try it for that purpose. Since this occurrence, I have tried the experiment several different times in different ways, with the same burner and others, and have been unable to produce a blaze with ether vapor; so that, while it is possible that this experience may be unique, and is certainly of rare occurrence if not unique, yet every surgeon and anæsthetist should bear in mind the fact that it has occurred. Fortunately, in this case the anæsthetist was prompt in his actions, and no damage was done, but very serious consequences might easily have resulted if the anæsthetist had lost his head.

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* Read before the Syracuse Academy of Medicine.

PERTUSSIS WITH UNUSUAL CEREBRAL SYMPTOMS.

By EDWIN E. GRAHAM, M. D.,
PHILADELPHIA.

The chart appended hereto, showing graphically the peculiar range of temperature in Dr. Graham's case of pertussis, reported in our issue for June 20th, p. 1108, was unavoidably omitted from that issue.

THE APPLICATION OF HOSPITAL METHODS FOR THE PREVENTION AND TREATMENT OF PUERPERAL SEPSIS TO PRIVATE PRACTICE.*

By WILLIAM S. STONE, M. D.,
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Obstetrical work, although requiring the same technical preparations as abdominal surgery, will always be done at the patient's home to a larger extent than the latter; and all physicians, too, do more or less of this work at the beginning of their professional life. It may be pertinent, then, to consider if the results that are obtained at home differ essentially from those that are obtained in the hos-

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* Read before the New York County Medical Society, March 23, 1903.

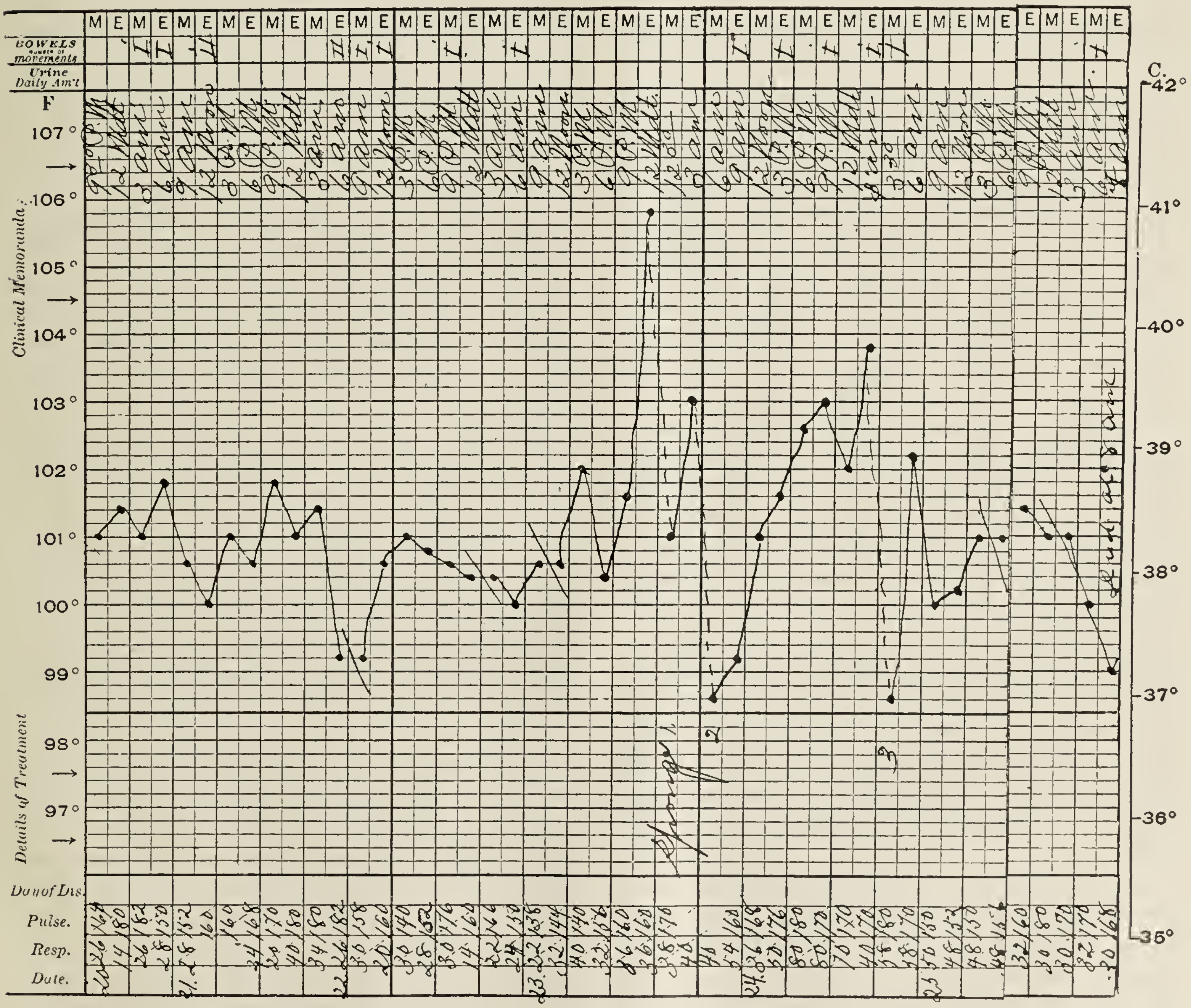

Chart in connection with Dr. Graham's article on Pertussis, published in our issue for June 20th, p. 1108.

pital; and, if hospital results are better, to consider their methods and the extent of their application to private practice.

Through the courtesy of Dr. Guilfoy, of the Bureau of Vital Statistics, I have been able to obtain the statistics of the New York Department of Health for the last five years, but those of the last two years are more completely tabulated, and will answer our present purpose sufficiently well. One thousand two hundred and ninety women are reported to have died in New York during these two years from some of the complications of childbirth; of these, 494 from some form of puerperal infection. There were reported during this period 178,139 births, making the mortality of the city in general from puerperal infection about .27 per cent., or 1 in 360. Many of the cases, in which death was reported to have occurred from other puerperal diseases, were certainly complicated by sepsis, and naturally many others are not reported as such at all.

It is manifestly unfair to compare such figures with those of a hospital, as, for example, with those of the Lying-in, to the service of which women already septic are admitted, or upon a large number of whom previous attempts at delivery have been made by attendants prior to their admission.

An out-door service, however, which treats a larger proportion of its cases from the beginning of their labors may fairly serve as a comparison. We find from the report of the out-door service of the Lying-in Hospital, published in 1897, that among 10,234 births the mortality from puerperal infection was about .14 per cent. Women, in other words, living in the dirtiest tenements, and in one of the most densely populated districts of the world, attended by nurses, students, and young physicians, if under the supervision of a rigid hospital discipline, run considerably less danger of death from puerperal sepsis, than do women of New York in general, in most instances under more favorable surroundings.

A consideration of the morbidity, estimating that of the city in general to have the same relative increase over the hospital percentage as does the mortality, will show, using that of the above mentioned service (3.22 per cent.) as a basis, that 10,688 women in New York during the past two years must have suffered from some form of puerperal sepsis.

In any consideration of hospital methods our attention is naturally directed to the elaborate equipment, which has so recently and rapidly developed to meet the demands of perfect technique. The marbled walls and the glass topped tables may be considered essential so far as they enable a hospital to treat more comfortably and efficiently a large number of patients within a short space of time; but this elaborateness of detail offers some disadvantages in carrying out a more important function of a hospital, *i. e.*, teaching principles and the simplicity of their application to students, who are often led to believe that without such equipment it is impossible, and hence useless, to attempt hospital methods in their private work.

The chief purpose of this paper is to show that the essential part of obstetrical technique is based upon a few observations, furnished to us in part by the bacteriologist, and a few methods of procedure, which are as completely applicable at the patient's home as in the best equipped hospital.

The bacteriological conclusions of Döderlein, Krönig, Menge, Williams, and others, although at variance in a few points because of technical difficulties, practically agree upon the following general facts: The interior of the uterus above the internal os is sterile. The cervical canal and vagina, with the exception of the gonococcus and possibly some anaerobic bacteria, do not contain pyogenic cocci. The normal vaginal secretion, especially during pregnancy, has bactericidal powers, so that pathogenic bacteria, if introduced before labor, may quickly disappear.

Asepsis, then, instead of antisepsis, is the principle of obstetrical as well as of surgical technique, the application of which is accomplished by: 1, The use of no antepartum douches, except there is present, for example, a purulent discharge, in order to protect the baby's eyes from gonorrhœal infection; not, however, as curative, because the seat of the infection is in the cervical mucosa; 2, The sterilization of the patient's external genitals and the attendant's hands; 3, the use of no postpartum douches, unless there is some special indication.

The following extracts from the instructions given to students who attend cases in the out-door service of the Lying-in Hospital, may serve to illustrate the general applicability of such principles at the patient's home: 1, Arrange the bed and bedding; put wash-board or ironing-board beneath the mattress; arrange patient in a position convenient for examination; place Kelly pad beneath the buttocks; arrange instruments and dressings upon a tray near the bed; prepare solution for the douche. 2, Sterilize hands and forearms by scrubbing with green soap and water for five minutes by the watch; then by scrubbing in 1 to 2000 bichloride solution for three minutes (if the students' watches are not found out upon the table they are reprimanded). 3, Wash off patient's thighs, lower abdomen, and external genitals with green soap and water, taking special care of the anal region, and also holding labia together to prevent the water from running into the vagina; rinse off with a 1 to 2000 bichloride solution; make the abdominal examination. 4, Resterilize the hands and fore-arms; make the vaginal examination and send in report to the hospital. 5, Conduct of labor: Make as few examinations as possible, preceding each examination by a sterilization of hands and fore-arms according to the above method, and by wiping off external genitals with cotton soaked in a 1 to 2000 bichloride solution; deliver on the side; wait one half hour for the placenta; give vaginal douche of 1 to 8000 bichloride, using the last part to rinse off the external genitals; apply sterile pad.

The instruments are sterilized at the hospital and wrapped in sterile towels so folded that they may be unfolded and spread out without contact before using. The dressings, also sterilized at the hospital, are in copper cylinders and are only removed as needed.

The patients are anæsthetized for all operations and placed in the lithotomy position upon a table and the external genitals resterilized by a sterile assistant.

In considering the final application of these methods to our own work we may find some difficulties, some omissions, some things perhaps undesirable.

Instruments and dressings, furnished and sterilized by a hospital, offer advantages which we must overcome by our own expense and labor. Sterile towels are particularly difficult to obtain, but freshly laundered towels that have been immersed in a bichloride solution may be wrung out dry, as needed, and answer sufficiently well. Such towels may be also used for a vulva pad until more suitable pads are obtained.

The Kelly pad is a disagreeable and often dirty affair, in place of which a freshly laundered draw sheet and bichloride towels may be substituted.

The question of shaving the vulvar hair presents an ugly problem; and while all of us believe, I think, that it is just as important as in the preparation for other vaginal operations, few of us, I fear, have the courage of our convictions.

The use of antiseptics in the sterilization of the external genitals is comparable to their use in the preparation of the skin for operations in other portions of the body. The writer does not think they are necessary, as he can hardly see how in the short time of contact they can fulfil their theoretical use. As a means, however, of securing sterile water (for which purpose bichloride is used in the out-door service of the Lying-in Hospital), they may represent a practical need.

The separation and eversion of the labia before the examining fingers are introduced is another detail of considerable practical importance.

A most neglected part of obstetrical technique is in regard to the postpartum care of the external genitals as performed by the nurse. A few words, explanatory of the necessity for frequent washing with hands sterilized as for an operation, will add immeasurably to the comfort and safety of the patient.

Total abstinence from postpartum douches, except immediately after labor to wash away clots, to promote the comfort of the patient, to prevent hæmorrhage or after pains in multiparæ, or for special indications, is an essential part of good technique.

After all has been said, done, or undone, the sterilization of the attendant's hands represents the most important feature of obstetrical technique in preventing puerperal infection. The general surgeon, with few exceptions, has adopted the use of rubber gloves as the last step, it would seem, in the perfection of this technique, but the obstetrician has not yet availed himself of this part of aseptic technique to the same extent.

The advisability of their general use in obstetrics would appear to depend upon the answer to the following questions: Are they necessary? Are the conditions the same as in general surgery? Are they practicable? Are better results obtained with their use?

The necessity of some method of perfecting our technique must be acknowledged as cases of puerperal sepsis still occur in the practice of the best obstetricians. The conditions in obstetrics, too, are such that any imperfection in the technique may be more often followed by disastrous results than in general surgery. There are often several wounds, all of which are always under the most favorable conditions for the entrance of bacterial agents.

An illustration of their general practicability and of results from their use may be furnished by the writer's experience of two months in one of the wards of the Lying-in Hospital. No antiseptics of any kind were used, except bichloride as an immersion fluid for the hands before the gloves were applied. No douches were given before, during, or after labor, unless special indications seemed to demand their use—and then only of sterile salt solution. No vaginal examinations were permitted without gloves. Sixty-seven women were delivered during this period—seventeen by some form of obstetrical operation. Fever occurred in only one patient, who was admitted so far advanced in labor that delivery occurred before the external genitals could be cleansed in the routine method. The fever in this case, which lasted only a few days, was due to an infected wound of the perinæum. There were two changes of house staff during this time.

Their general practicability was also demonstrated, as the house staff had had only three months' previous experience in obstetrics, and errors of diagnosis were not more than ordinarily common. Two versions were readily performed by one of the men—one for placenta prævia.

The writer has used gloves in his private practice for two years with the greatest satisfaction. Results from their use seem to be specially demonstrated by the normal course of the temperature in cases of retained portions of gestation products, the only symptom of which is the persistence of a bloody discharge.

They would appear to be specially necessary for those who are engaged in general work, and the writer believes that, by their general use, the morbidity from puerperal infection can be reduced at least one half.

THE TREATMENT OF PUERPERAL INFECTION.

Hospital methods of treating puerperal sepsis are also such that they may be readily applied at the patient's home, except occasionally on account of the expense which is naturally attendant upon efficient nursing.

A knowledge, however, of certain general facts relating to the clinical course is essential for the adoption of rational methods of treatment.

A keen appreciation, for example, of the fact that puerperal women are liable to the same diseases as other women, must not obscure the actual fact that fever during the puerperium is in the overwhelming majority of instances the direct result, either of the absorption of poison generated by saprophytic organisms, or of infection of the tissues with pathogenic bacteria from some wound of the genital tract—even in the absence of marked local signs, such as pain, tenderness, swelling, and discharge. A foul discharge, on the contrary, may exist from the decomposition of blood clots in an intact vagina without the presence of fever.

The frequent disappearance of fever after brisk catharsis may even be due in some instances to better drainage, previously prevented by a trivial uterine displacement from a distended rectum.

The majority of cases of so called sepsis, especially those first presenting fever near the end of the first week or even later, are examples of septic intoxication, due to the retention of discharges or decomposition of blood clots and retained gestation products, and recovery practically always occurs. Exceptions are the fatal cases of pyæmia, which often do not begin until the end of the first week.

Another large class of cases, examples of real infection with pathogenic bacteria, and often presenting alarming constitutional symptoms, is chiefly characterized by local disturbances, either in the original wound, or in the adjacent pelvic organs. Such cases, even in the presence of abscess formation, almost always recover.

Finally, from 70 to 80 per cent., even of those comparatively rare examples of true septicæmia, recover. The earlier the symptoms begin, the worse is the prognosis—the most fatal of all being those in which symptoms appear within a few hours after labor.

One or two other clinical facts must be considered. An initial chill is in no way indicative of a severe type of the disease—a chill often occurring after the most careful local treatment without subsequent manifestations. The fever is no such index of the condition of the patient as is the pulse. Recovery after very high temperatures is not rare.

Accepting these general statements to be true, our search for the essential principle that characterizes hospital methods of treatment will show it to be accuracy of diagnosis, which is obtained by a more careful examination of the pelvic organs at the initial period of the disease than is generally made at the patient's home.

The writer will also add, as a desirable feature of the treatment, the principle of asepsis, although not assuming his own application of it to be a general method of hospital practice. Dr. Charles McBurney, in a paper entitled Remarks Concerning the Practice of Aseptic Surgery, recommends the application of aseptic, rather than of antiseptic principles, in the treatment of septic wounds. The reasonableness of his conclusions and the simplicity of their execution prompted the writer to adopt such principles in the treatment of puerperal sepsis.

Accuracy of diagnosis and the immediate application of aseptic treatment may be obtained in some such way as the following: So soon as fever appears, excluding the breasts and constipation as ætiological factors, the patient must be transferred to a table and placed in the lithotomy position, with or without anæsthesia, according to circumstances. After the sterilization of the attendant's hands and the patient's external genitals is completed, a systematic examination, beginning with the perinæum, is made. Until the writer adopted this method, he was totally unaware of the frequency with which infected wounds below the placental site were the cause of the trouble. A very common error in the treatment of a patient who is presumably septic is to give an intrauterine douche without a previous examination of the perinæum, vagina, and cervix, so that in many instances a transference of the infection to the placental site, resulting possibly in a fatal termination, is caused by our initial efforts at treatment. After the perinæum has been examined, discharges in the lower vagina are sponged away and a retractor is introduced. The vaginal vault and cervix are then inspected, and it may be often unnecessary to go farther, as sufficient cause for the fever may be already found. Aseptic treatment of these wounds by irrigation with sterile salt solution is sufficient in most instances to promote healing and the disappearance of the general symptoms.

If the interior of the uterus is presumably the cause, either with or without previous dilatation of the cervix, one or two fingers are introduced and an examination of its interior is made. This internal palpation is only satisfactorily accomplished by means of firm counter pressure exerted over the fundus by the abdominal band.

A satisfactory prognosis and scientific accuracy, especially in judging of the value of any particular form of treatment, demand a bacteriological examination of the interior of the uterus. It is necessary for this purpose, in order to avoid contamination, that some tube, such as Menge's or Williams's, should be used. The bacterial relations of the interior of the uterus are, in general, a better guide in diagnosis than the examination of the blood, as the bacteria are present in the general circulation at irregular and often transitory intervals.

Retained discharges, either from premature cervical contraction or from uterine displacement, may be found to be the cause. If there are putrid remains of gestation products, they may be removed with the fingers supplemented by the use of some dull instrument, as, for example, the ordinary sponge forceps. A common error in judging of the uterine interior is to consider the normally roughened placental site as retained gestation products.

The uterine cavity is then washed out with hot saline solution, after which it is rarely necessary to apply subsequent intrauterine treatment. A septic endometritis causing necrosis and a purulent discharge, is, in the writer's experience, comparatively rare, especially in the cases of true septicæmia with rapid invasion of the general circulation. The writer, would, then, especially offer his protest against the use of antiseptic douches, either continuously, or at frequent and regular intervals in this class of cases. A bacteriologist recently told me he preferred to make his cultures immediately after the use of an antiseptic douche, as they were less likely to be contaminated with non-pathogenic bacteria. Ergot administered at rather frequent intervals is a much more certain aid in maintaining uterine contraction.

If other pelvic lesions, such as cellulitis or peritonitis, are present, an ice bag is applied to the abdomen, followed later by prolonged and hot vaginal douches, to aid in the absorption of the exudate. If an abscess is present, it is opened in the most accessible region.

More radical procedures, such as hysterectomy, are indicated in a very few instances. Two cases which I followed clinically, presented such postmortem lesions that a complete extirpation of the internal genital organs would appear to have been indicated. From a necrotic focus at the placental site pus could be seen in the veins and lymphatics running out to the ovaries and ends of the tubes, the lumen of one of which contained pus at its outer end. Pus was also present in the uterine wall running across the fundus close to the peritoneal surface, from which a rapidly spreading peritonitis had developed. No other organs were involved. It may be that in judging of the cases that are suitable for radical procedures a spreading peritonitis offers the best index, especially in the presence of vomiting and a rapidly increasing pulse. Signs of local pelvic disturbance are not indications for such measures.

In conclusion, it must be recognized that no evidence has so far been produced to show that any form of specific treatment is of the least value in those severe types of the disease designated as septicæmia or pyæmia.

1730 BROADWAY.

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Chronic Enlargement of the Liver in Tropical Countries.—M. Tourtoulis (*Lyon médical*, April 28th and May 3d) formulates a plan of living for those obliged to reside in tropical countries, in order to avoid hepatic troubles generally, and chronic enlargement of this organ particularly. He advises moderate eating to avoid gastrointestinal disorders and the avoidance of large quantities of easily putrescible food, relying mainly on fruits and vegetables. Gastrointestinal disorders should be attended to at once, and constipation must be watched against. Alcoholic liquors should be taken not at all or very well diluted; their abuse leads to hepatic irritation and gastritis. Open-air exercise is recommended as an hepatic and respiratory stimulant. Profuse sweating should be avoided, by drinking only enough fluids as are necessary for the organism. Idiopathic disease of the liver does not exist in tropical countries, and hepatic disorders can be avoided by attention to the regimen. If the liver becomes enlarged, even though the patients feels well, he should take a long sojourn in a cooler climate, and adopt a suitable mode of life until the organ again reaches its normal size and performs its normal function.

PROPHYLACTIC INJECTIONS OF TETANUS ANTITOXINE IN CASES OF WOUNDS FROM TOY PISTOLS.

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It is difficult to establish the value of prophylactic injections of the antitoxine of tetanus in man. Tetanus is a relatively rare disease in human beings, when the great number of wounds contaminated with the refuse from stables, the dust of the streets, and the like, is taken into consideration. From the fact that but very few cases have developed among those injected with prophylactic doses we cannot properly conclude anything, even though tetanus was epidemic in the locality at the time, unless a very large number of cases have been so treated.

My interest was first aroused by the remarkable results obtained by Nocard in animals from 1895 to 1897. These I have fully transcribed in a former paper.[1] As tetanus was to a certain extent epidemic in New York city in 1899, particularly in boys who had received wounds from the wads of toy pistols, I looked into the subject to find out whether the occurrence of this disease could be prevented. I think that I have been in a measure successful, as I have had but one case of tetanus develop out of 129 cases of wounds from the wads of toy pistols occurring in the out patient department of the Hudson Street Hospital in the last three years. Of course it may be argued that tetanus was of more frequent occurrence during 1899 than during the subsequent years. I will grant that, but the daily papers have by no means been free from accounts of death from tetanus due to toy pistols in the past three years. It has even been urged by more than one writer that the sale of these toys should be forbidden, and legislative action has been seriously considered.

In looking up the literature of this subject, in 1899, my attention was attracted to a paper by Bazy.[2] From April, 1894, to May, 1895, he had four cases develop in his wards. Three followed severe traumatism, one was a case of so called spontaneous or idiopathic tetanus. From that period he applied preventive treatment to all cases of wounds which were admitted to his service. He made twenty-one preventive inoculations of 10 cubic centimetres each. None of these patients developed tetanus, although, he says, their wounds belonged to that category which causes most cases of the disease. The number of his cases was entirely too small to lead to any conclusion in regard to the value of this remedy when used prophylactically, still it appeared to me to be well worth a trial in a class of wounds particularly liable to produce the disease, *viz.*, wounds from the wads of toy pistols.

In my former paper I reported that I had used prophylactic injections of from 4 cubic centimetres to 10 cubic centimetres each in fourteen cases of such wounds occurring in my service at the Hudson Street Hospital during the summer of 1900, and that I had not used them in thirteen such cases. One of the latter patients developed fatal tetanus. I stated in my paper that I did not think that the local treatment of the wound in that case was so thorough as it should have been. The same observation may likewise possibly apply to some of those that received prophylactic injections. Since the summer of 1900 I have continued to use such injections in the majority of these wounds. During 1901, doses of 10 c. c. each of tetanus antitoxine were administered to thirty-four patients with toy pistol wounds. During 1902, twenty-two such patients received prophylactic injections, the usual dose being 10 cubic centimetres, while forty were not injected. So far this year (April 23, 1903) two have received prophylactic injections, while four have not received them.

Counting the cases previously reported, there are then seventy-two patients who got prophylactic injections, while fifty-seven did not get them. So far as we have been able to learn, there was only the one case of tetanus, previously reported by me,[3] among the entire one hundred and twenty-nine.

Whether any one of the seventy-two patients who received injections would have developed tetanus otherwise cannot be said. How much success, if success is granted, was due to thorough local treatment, and how much to prophylactic injections, I do not know. Suffice it to say that we seem to have got rid of tetanus in this class of wounds at the Hudson Street Hospital.

While I do not think that anything definite can be said regarding the value of prophylactic injections from such a small number of cases, I shall use them in all cases in which the wound has not been thoroughly opened and cleansed within a short time after its infliction. I have caused all such wounds to be freely and deeply incised and curetted, and then to be swabbed out with pure carbolic, its action being limited with alcohol when deemed advisable.

Nocard used two injections of 10 cubic centimetres each at an interval of ten days in animals. In human beings it has been advised to repeat the injection once or twice at an interval of three or four days; particularly if the wound does not become healthy, as Vaillard an Rouget[4] have shown that symbiosis is essential to the elaboration of tetanus toxine.

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[1] Some Remarks on Tetanus, *New York Medical Journal*, July 20, 1901.

[2] Bazy, De la sérotherapie dans le tétanos, *Bulletins et mémoires de la Société de chirurgie de Paris*, 1896, N. S., xxii, 186, 191.

[3] *Loc. cit.*

The same pains in the joints and rashes that sometimes follow the exhibition of the antitoxine of diphtheria may occur after the use of tetanus antitoxine; they are transitory and usually cause but slight inconvenience.

This subject received considerable attention at a recent meeting of the French Congress of Surgery, October 20 to 25, 1902.[5] M. Villas (Lyon) said that preventive serumtherapy in tetanus possessed certainty of action, and that if it were systematically applied to all wounds, tetanus would disappear from human pathology just as smallpox in the presence of vaccination. He considers that the preventive treatment is indicated when one encounters a suspicious wound, that is, a contused, irregular wound, soiled with earth or foreign matter. Neglect of such treatment he considers very wrong, and thinks that efforts should be made to cause the danger of tetanus in such wounds to be more thoroughly recognized. These views received the most enthusiastic endorsement of those who spoke on the subject.

Lectures and Addresses.

THE SURGERY OF THE PROSTATE FROM THE STANDPOINT OF PERSONAL EXPERIENCE. BEING THE ORATION IN SURGERY.*

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(*Concluded from p.* 1114.)

PERILS AND ACCIDENTS OF THE OPERATION AND UNSATISFACTORY RESULTS SOMETIMES FOLLOWING IT.

When one who has had no experience in these operations reads statements reporting a long list of cases operated on without deaths and all resulting in perfect cure, which, of course, I take to mean the ability to empty the bladder entirely and with convenience, it would seem that the procedure is always so easy of execution that there are no dangers, and there need never be any anxiety about the outcome as to life and the ultimate perfect restoration of the power of voluntary urination. Do not be deceived by such reports. Some people die in the hands of every operator, and misrepresentation with regard to the dangers, difficulties, and annoyances will not help to popularize these operations with the medical profession.

In the suprapubic operation, one has to deal always with the possible dangers of urinary infiltration, and at times, with profuse hæmorrhages. Where there is great removal of tissue, it may be followed by the formation of very irregular cicatrices about the base of the bladder, with sometimes such deformity of the bladder neck that continuous leakage occurs, necessitating the use of a rubber urinal. Where the tumors removed are fibroid, or so dense and adherent that it is necessary to bite them off piece by piece by rongeurs or serrated scissors, the pressure of the knuckles of the hand used for enucleation or of the handles of the rongeurs often destroys the vitality of the fatty tissues of the abdomen about the cut or of the cellular tissue in front of the bladder, and sometimes of the bladder wall itself, producing necrosis and subsequent sloughing, and the wound is slow to heal or sometimes leaves a fistula which requires one or more subsequent plastic operations to close.

The leakage from a suprapubic wound is always very disagreeable and annoying to the patient. Even after the voluntary power of urination is restored the fistula may remain open for days or weeks, and occasionally a portion of the urine will escape from it when the bladder is distended. I have seen men much more troubled about this, and much more miserable over it, than they were when they could not urinate at all, and were suffering intensely every minute of the day from obstruction.

The difficulties of the perineal operation are not usually great. Its perils consist in:

1. The making of an irregular tear in the bulbous urethra by the assistant who holds the staff thrusting it awkwardly and violently through the bulb. This gives rise to very prolonged healing of the urethral wound, and sometimes to the formation of a fistula difficult to repair.

2. When the prostatic capsule is entered and an attempt made to enucleate its contents, no line of cleavage can be found, and persistence in an effort to excochleate may lead to a tearing away of the organ from the pelvic tissues making room for urinary infiltration and subsequent infection.

3. If such fibroid growths are removed piecemeal with scissors and rongeur, it leaves a very irregular channel, which subsequently tends to contract, making resistance to the entrance of any instrument, and interfering in part, or in whole, with the expulsion of urine, so that the individual is no better off than before. In one case a Bottini had to be done sub-

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[4] Vaillard and Rouget, *Annales de l'Institut Pasteur,* June, 1892, p. 384.

[5] *Revue de chirurgie,* 1902, xxvi, p. 632.

* Delivered before the Medical Association of the State of California at Santa Barbara, April 21, 1903.

sequently before the power of urination was restored.

CASE I.—I. C. S., aged sixty-eight years; farmer. Patient of Dr. Beckett. Has led catheter life for three years, and had urinary frequency with difficulty in urinating for a year previously. Urethra passable frequently only to a stiff catheter loaded with a mandrin. Frequency about ninety minutes.

Operation: Perineal prostatectomy. It was believed that the prostate would excochleate readily, but it was so irregular and dense intraurethrally that it was suspected to be cancerous; no line of cleavage could be found.

Attempts to enucleate on either side resulted in opening the tissues of the pelvis outside of the capsule. Being without the Bottini, a suprapubic incision was made, and as much of the rubber ball-like substance removed by rongeurs as was necessary to provide a channel sufficient to admit two fingers.

Drained both ways by metallic perineal tube and DePezzer's suprapubic. Tubes removed on fourth day. Perineal wound healed on eighth day. Suprapubic wound closed on the eighteenth day, but as no urine was passing, it was reopened and a small DePezzer perineal drainage tube reinserted. On April 2nd, a Bottini was done under nirvanin-cocaine anæsthesia.

Three incisions, each 3 centimetres long, were made on the floor and each side of the commencement of the urethra.

April 17th: Voluntary urination: good full stream, which empties the viscus. Much slough has passed away in the bladder washings.

Cure practically finished April 18th; suprapubic tube removed April 20th. All urine passing by natural passage in a full stream.

The perineal operation may appear to be perfect and the real obstruction be intravesical requiring a suprapubic operation, as in the following case:

CASE II.—S. D. C., November 16, 1899. Aged sixty-nine years. Sent by Dr. E. C. Buell. Occupation, mercantile agent. Diagnosis, prostatism. History: Attack of retention in 1895. For four or five years previously, increased frequency and difficulty in passing urine. Between 1895 and the present time he has had a number of attacks of retention with symptoms of uræmia, and was once confined to bed for six months. Has led continuous catheter life for about a year.

Examination: External organs healthy. Prostate greatly enlarged. Seminal vesicles healthy. Bladder capacity 300 cubic centimetres. Residual urine 180 cubic centimetres.

January 4, 1899. Being very weak and unwilling to be cut, the patient submitted to a Bottini operation under local anæsthesia, 60 cubic centimetres of a 5 per cent. nirvanin solution for the bladder, and a few drops of 10 per cent. cocaine solution for the posterior urethra. One posterior incision 3½ centimetres. Time, three minutes. Current, 50 ampères. Very slight hæmorrhage, Recovery without incident. On January 30th he was able to pass four ounces of urine with each effort. March 22nd, passing urine easily at intervals of two or three hours. Uses catheter once at night relieving himself of four ounces.

He continued in this condition until June, 1902, and became strong, able to work, and enjoy himself. Then, there being increasing difficulty in the passage of the catheter and an increased residual, he consented to a perineal prostatectomy. This was done with some difficulty, the growth being very dense and difficult to excochleate. The portions that were easiest to remove were those about the scar of the Bottini burn. The bladder had a very deep *bas fond* back of the ureteral pillars. Weight of prostatic tissue removed 6 grammes; calculus removed at same time weighed 4 grammes. This operation was done by Murphy's method. It left a very hard scar, which, by its contraction, obstructed the urethra and was very painful. At the time of operation, my finger entered the bladder, and was swept well around the lower part of its neck, and could not detect any further obstruction, with the exception of a very small teat to the left and below the urethral orifice. It was not believed that this would lead to any difficulty, and it was let alone. The operation did not give the patient any relief. In September he was really worse off than he had been in June. I succeeded in cystoscoping him, and found that there were two obstructive elements. One was the contraction of the perineal scar, and the other a moderate sized tumor springing from the upper right hand segment of the vesical neck, very irregular and connected with the prostate. A perineal incision was made and the hardened cicatrix removed where it pressed upon the urethra The bladder was opened suprapubically and the prostatic growth removed with great difficulty by rongeurs. Recovery was uneventful. Perineal wound healed in ten days. The healing of the suprapubic wound was delayed by reason of the violence done to the tissues by using the rongeur. He was passing water naturally, and his wounds were closed at the end of three weeks. He empties his bladder completely, has not to rise more than once at night, has become strong and vigorous and is able to attend to his business continuously.

4. There is also danger of tearing into the rectum—an accident which happened to me once in a cancerous prostate, and which is liable to happen to any one operating in a very dense or fibroid prostate.

Through the perineal wound small, or even large, pieces of the prostate tissue may escape into the bladder in the process of enucleation. This to a certain extent may be overcome with the larger nodules by catching each one with a well-curved tenaculum and drawing it down into the external wound before it is finally loosened from the capsule, but the very small ones are liable to get lost, and if allowed to remain in the bladder would form nuclei for stones. On three occasions, I have had such pieces escape into the bladder, but I have always been fortunate enough to know it and to recover them without making the suprapubic cut. Much time was lost, and the operation was greatly prolonged by reason of this accident.

Case III.—June 29, 1899. J. B., aged seventy years. Merchant. Complains of burning in the bladder and increased urinary frequency. Urine very acid. No albumin, sugar, pus, or casts. External genital organs normal. Prostate slightly enlarged on right side. No residual urine.

July 26th. After massage of prostate, urine passed was centrifuged and examined microscopically. Uric acid sand, and calcium oxalate crystals, surrounded by clumps of pus.

August 5th. Has taken cold and prostate is œdematous and prominent. This attack was accompanied by right-sided epididymoorchitis. Later, he became very comfortable and remained so until 1902, when, in May, after seeing a relative operated on for prostatic obstruction by me, he bethought himself of his former attack and had a surgeon in a neighboring city examine him. He found he was carrying more than a pint of residual urine. The surgeon gave him a catheter to use, with which he very promptly infected himself. His prostate had grown to a very large size. After suffering a few weeks, he decided on operation. The enlarged glands were enucleated without difficulty, but one piece slipped away and got into the bladder. It required a long time to recover it. His external wound healed in ten days. The urine passed by the urethra naturally when he was lying in bed after twelve days, but he could not retain it when walking about for nearly six weeks. This was due to the undue stretching of the bladder neck by the tumor having grown into it directly from both sides of the urethra, which interfered very greatly with the restoration of its tonicity. Within three months he retained his urine perfectly and his bladder empties itself to the last drop. He sleeps all night and only urinates four or five times during the twenty-four hours.

This case illustrates very nicely commencing prostatic obstruction, its development and cure.

5. When the tissues of the bladder have been greatly bruised by sharp stones before the operation, or where the urine is hopelessly alkaline, with all that condition implies, all wounded surfaces within the bladder, and sometimes within the prostate, become covered with phosphatic incrustations. These are subsequently cast off, or may have to be loosened by curetting somewhere between the third week and the third month. In one case I had to reopen the suprapubic wound on this account, and took out a whole handful of sloughs covered with such deposits. In another case, very recently, such sloughs came away through the perineal wound, which reopened apparently from this cause, and subsequently closed itself. Another patient in the hands of a colleague, I am informed, discharged such sloughs for many weeks.

6. Dangerous hæmorrhage is not common by the perineal route, unless the case is complicated by a tight stricture in the perineal urethra, requiring the severing of the bulb in the course of the operation, or unless the bulb is carelessly cut in making the necessary opening in the urethra; but secondary hæmorrhage does occur. I have seen it now in two cases during the past year, each following an attack of tenesmus, that, as near as I could discover, arose from an organized clot which had formed on one side of the bladder neck, and when the packing was removed and the perineal wound practically closed upon the restoration of the power of urination, this clot was swept into the urethra and, being firmly attached, remained there, causing tenesmus. The forcible contraction of the bladder neck upon the clot loosened it from its vessel and a hæmorrhage then took place into the bladder filling it to distention in less than two hours.

In the first case I was able to remove these clots and stop the hæmorrhage by breaking them up with a lithotrite in a 15 per cent. solution of hydrogen dioxide in normal salt solution and subsequently pumping them out with a Chismore evacuator. In the second case, the bleeding could not be controlled, and I had to do a suprapubic cystotomy under the most unfavorable conditions, and pack the urethra from within and without the bladder, with gauze steeped in solution of adrenalin chloride. This packing had to be so tightly placed, that it was followed by a slight slough in the rectal wall which has been very difficult to repair.

7. There is another danger which I have discovered in these perineal operations. Where one or more small nodules are imbedded directly in the tissues around the internal urethral mouth, or where there are nodules buried beneath the mucous membrane directly inside the urethral neck, and their removal is absolutely necessary, it may be followed by the tearing out of the whole posterior urethra. This is a very disagreeable accident, but its occurrence is not necessarily destructive of the ability of the bladder to functionate properly.

Case V.—April 3, 1898. Patient of Dr. Cannon. W. S., sixty-nine years old. Has led a painful continuous catheter life for four years, which for a few months past has been almost unbearable. Prostate greatly enlarged. Bladder base tense. Sounded for stone—result negative. Cystoscoped, and three large calculi were found in a diverticulum. Left ureter dilated and pumping purulent urine. April 5th. Litholopaxy. Weight of stones 45 grammes. Confined to bed for twenty-four hours. In a week he was able to pass some urine and catheterize himself at reasonable intervals without pain.

February 12, 1902. I removed the prostate by median perineal route at his request. There has been great pain recently and catheterization is no longer possible. The lateral enlargement came away quite easily, but set about the bladder neck just under the mucous membrane were a lot of small nodules like pearls in a ring. After much patience I succeeded in removing five or six of these. There were two of considerable size beneath the tissues of the bladder in front of each ureteral opening. Suppuration had taken place in these and I opened them through the floor of the bladder with my long capsule knife and enucleated them, but they were very adherent, and, using too great traction upon one with a volsella, I turned the bladder neck inside out, removing it with the tumors surrounding it and part of the sphincter muscle attached before I recognized it. To say I was astounded and dismayed would not express my feelings. I placed a No. 40 F. soft rubber drainage tube in the opening and, as the wound closed, reduced the calibre until a No. 16 F. was used. The perineal wound was kept open until the bladder made reservoir for 240 cubic centimetres of urine while the patient was prone. He leaked a while after getting out of bed, but in seven weeks he was urinating clear urine, 250 cubic centimetres at a time, and had full control of his bladder at all times and a full-sized sound could be passed to his bladder.

At the time of the operation I removed about sixteen stones, and the left ureter was so dilated that I could easily introduce the end of my index finger into it.

I have seen him this very day and he is well and states that he has no difficulty in holding his urine for four hours, does not have to rise at night, and can project the stream fully three feet from his body.

8. In making the perineal incision, in very large stout men with deep perinæums, great care should be exercised to keep well away from the rectum with the skin cut. I was very much embarrassed once, where I had closely approached the sphincters but had not severed them at all, to see subsequently the anterior fold of the anus drawn an inch and a half well up into the perineal wound by the action of the levator ani muscles, and every time there was a passage from the bowels, the wound became filled with fæcal matter, though there was no cut in the rectum itself.

BENEFITS OF THE OPERATION.

It has been a striking fact that sexual power, if present, has usually remained after operation, and if absent has been often restored. This is directly contrary to the teachings of the Necker school, and of Murphy, but has also been the experience of Bryson and Goodfellow.

In the great majority of the 49 prostatectomies and 29 Bottini operations which have been performed by me the results have been ultimately good. In a few, they have been almost perfect. None have been positive failures. In all, the general conditions of the individual have been improved. All of my operations have been done on persons who had been leading a catheter life at the time of the operation. It seems to me unreasonable, when one considers the general and local conditions existing in such people, that the surgeon should be expected to make them over again. A few have dribbled for a time, but not any permanently. All, eventually came to hold a reasonable amount of urine, and I do not know of any who ultimately had a residual of more than 50 cubic centimetres. I have never yet seen one of these cases put in a condition, where it was not necessary to urinate at least four or five times during the twenty-four hours, and I do not look for this. I think that when one takes an old man who cannot urinate at all, whose urine is foul, whose bladder is distorted, its walls thickened and undergoing fatty degeneration and perhaps containing one or more sharp irritating stones, whose ureters are dilated and whose kidneys are filled with pus, who is weak and sallow and uræmic, and who cannot sleep because he has to pass a catheter every fifteen or twenty minutes, and this catheter is inserted with great muscular effort causing much pain and frequently bleeding, obtaining only a few teaspoonfuls or, perhaps, tablespoonfuls, of urine at each urination, and one operates on him, clearing the membranous and prostatic urethra and the bladder neck from the tumors pressing upon them, giving a chance for the urine to find its way out of the bladder in a natural manner, and afterward that man can hold from 120 to 150 cubic centimetres of urine at a time and expel it at intervals of three or even two hours, and has not to exceed 30 to 45 cubic centimetres of residual urine; if his dyspeptic symptoms disappear, his appetite returns, his cheeks take on the color of life, his eyes become bright again, his mental faculties become lucid and his kidneys secrete a fair amount of urea, I think a very excellent surgical operation has been performed, the results of which are sufficiently gratifying to justify the risks of failure which were taken in attempting it—results which do not require apology to the patient, his friends, or the medical profession by the operator.

This, gentlemen, is the history of 65 of my cases that have received the above benefit from the operation of prostatectomy or prostatotomy. Of the operation of prostatotomy by the Bottini method, I have not the time to tell you what I believe to be its full value; I only repeat what I have already intimated to you several times in this paper, that it possesses a very real surgical value. There are certain cases of prostatic obstruction in which it is to be preferred and will give better results than any cutting operation. In any case where the sufferer keenly dreads the knife, as so many millions of our fellow-men do, he should, if he will accept the responsibility, always be given the benefit of the Bottini operation where he will not submit to a prostatectomy. The surgeon who pretends to special skill in diseased conditions at the bladder outlet shows no wisdom by sneering at this operation and refusing to acquire skill in its application. I know on this ground I am supported by the two genitourinary surgeons who, I think, have at their disposal and directly under their control a greater amount of urogenital material than any others in America, I mean Dr. Orville Horwitz, of the Jefferson Medical College, and Dr. Hugh M. Young, of the Johns Hopkins University, both of whom are practical men with excellent faculties for observation.

540 Douglas Block.

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Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

[*Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:*

XXIV.—How do you treat delirium tremens? (Under adjudication.)

XXV.—How do you treat the summer diarrhœa of children? (Under adjudication.)

XXVI.—How do you treat "habitual abortion"? (Answers due not later than July 10, 1903.)

XXVII.—How do you treat paraphimosis? (Answers due not later than September 10, 1903.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of $25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED*) that the answers be short, if practicable, no one answer to contain more than six hundred words.*

Only subscribers to the New York Medical Journal and Philadelphia Medical Journal *(including regular and volunteer officers of the Medical corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.*]

The prize of $25 for the best essay submitted in answer to question XXIII has been awarded to Dr. Clarence A. McWilliams, of New York, whose paper appears on p. 1115.

PRIZE QUESTION NO. XXIII.

THE TREATMENT OF INGROWING TOENAIL.

(Concluded from p. 1118.)

Dr. May Farinholt-Jones, of Columbus, Miss., writes:

Ingrowing toe nail is a condition that would rarely come to a physician's attention if men and women did not so frequently wear ill fitting and uncomfortable shoes. It is a condition practically unknown among the barefoot tribes and nations. Shoes with French heels and pointed toes are directly responsible for many of the ills to which flesh is heir. Of a truth, vanity and civilization frequently go hand in hand, and this abnormity is a part of the price we pay.

Ingrowing toe nail is due to two conditions: Lateral hypertrophy of the nail, or the encroachment of the soft parts upon its margin. The latter condition is brought about chiefly by the pressure of an ill fitting or narrow shoe, causing the toes to override each other. This abnormity causes the nail to press into the tissue, giving great pain and discomfort.

The simplest method of treating this condition, where no suppuration or granulations have formed, is to lift the nail at its margin and gently pack a small strip of gauze under it. Of course the treatment must be persisted in for several weeks. After a few times the patient can pack the gauze under the nail for himself.

In the majority of cases to which a physician's attention is called, suppuration and painful granulations have already formed to a greater or less extent; the entire toe is inflamed and tender, and the slightest pressure or manipulation causes excruciating pain.

For such cases the foot should be bathed fifteen or twenty minutes in warm water, in which a handful of sodium chloride or an ounce or two of sodium bicarbonate has been dissolved. The affected toe should be thoroughly washed with green soap and carefully dried. The granulations should be removed with a pair of sharp scissors, or they may be burned with nitrate of silver or pure crystals of carbolic acid. If the granulations are very painful, it may be necessary to use a local anæsthetic. If pus has formed, the part should be sprayed with peroxide of hydrogen, and the inflamed member then carefully dried and dusted with boric acid powder, which, to a certain extent, alleviates the pain and acts as an antiseptic. A thin strip of gauze is then gently but firmly packed beneath the margin of the nail. Small strips of gauze should also be packed between the hypertrophied tissue and the nail. A bistoury is the best instrument to use in thus packing, the thin blade getting under the nail without giving much pain.

This process is repeated each day until the nail is gradually lifted to its normal position above the tissue, which, in the meantime, has regained a healthy condition. The toe should be neatly bandaged in one or two layers of thin gauze.

This method is less painful than splitting the nail and removing it, and the result obtained is more satisfactory and more permanent. The patient should be urged to wear well fitting and comfortable shoes as an important aid to the permanency of the cure. I have used this method of treatment in my practice for the past six years, and in no case has it been necessary to remove a nail where it was patiently and persistently followed.

Dr. J. G. Dodge, of Hodges, Texas, writes:

In the treatment of ingrowing toe nail we have first to consider the cause and its removal as far as possible, and if the reader finds anything in this paper on the ætiology of ingrowing toe nail of a novel nature, let him consider, think, and observe before he condemns it as erroneous as well as novel.

First, we may consider the fact that those who do not wear shoes have no ingrowing toe nails, which brings us to consider that pressure of the shoe upon the toe and toe nail is the primary cause or factor in its production; and by this pressure and the effects produced by it must ingrowing toe nail be explained.

Now we may consider, if you please, the toe nail divided anteroposteriorly into three or four approximately equal portions or strips. Those nails having a conformation known as the broad "flat" nail we may divide into four parts and designate them as lateral fourths, and right and left middle fourths or probably, and indeed more conveniently, may divide the nail into a middle half and two lateral fourths. The toe nail conforming to a type that might be called the narrow, long, sharply curved nail, we may divide into thirds and designate as middle third and lateral thirds.

And now we have to consider the changes which pressure and its auxiliaries produce in the relations of these thirds, or half and fourths, to each other, and to the toe itself.

The pressure exerted by the shoe on the toe and toe nail is both a lateral and a vertical pressure—the lateral pressure is produced by the shoe on one side and the adjacent toe on the other side; and the top or vertical pressure is produced by the upper of the shoe on top and the sole beneath. (Of course if we should consider a case of one of the middle toes we should say the lateral pressure was caused by the adjacent toe on either side; but as we might say it is universally the nail of the great toe that is ingrowing, we may consider that one alone.)

Now the shoe is put on in the morning and after a greater or less length of time the nail becomes moist, soft, and pliable through the perspiration of the toe and the foot generally, and the moisture-laden air resulting therefrom. This is most likely to occur in warm weather, and it is especially in summer that ingrowing toe nail manifests itself, or increases in severity.

And now the lateral and top pressures cooperating, results in an increased curvature or a folding, as it were, of the toe nail at (or approximating) the line of union of the lateral third or fourth with the middle third or half, and the tendency to form along that line (and most especially anteriorly where the pressure is most effective in altering the normal even curvature of the nail) a corner or ridge, so to speak.

The toe itself has its normal structural relations altered also by the pressure.

Now the shoe and stocking are removed and the toe nail in this altered shape at once begins to lose its moisture, and in a few minutes is dry, hard, horny, and unyielding. True, it has partially regained its normal shape or condition, but not wholly so before becoming quite dry, and the tendency that the toe itself continues for a longer time to resume its normal structural relations or shape is opposed by the nail in this altered unnatural form and hard, unyielding condition, and this is especially felt at the free portion of the lateral edge, and irritation more or less is produced, even in the first twenty-four hours. At first this is not noticed; but days, weeks and months pass, the causes daily at work, and the effects increasing—the curvature or folding along the line spoken of above increasing, and each daily increase is being strengthened by a condition that is obtaining underneath the nail, for here, underlying this line of increased curvature or folding, the papillæ of the matrix and the layers of epidermic (nail producing) cells are crowded together and result along this line in a hypertrophy and thickening of the nail, and this results in a strengthening of the nail at this place, which more and more prevents its return to normal curvature.

The increase of curvature or folding along this line may progress until there is a very prominent ridge or corner, as it were, and until the lateral third or fourth joins the middle third or half, approximately, and sometimes indeed quite at, a right angle. The pressure on top is now forcing the lateral free edge of the nail almost straight down, if indeed it is not perfectly straight down, into the lateral fold, and sooner or later this pressure is followed by irritation, inflammation, and a lesion of greater or less extent and severity results.

The principal factor in this condition of ingrowing toe nail is the altered curvature of the nail along this line and the attendant hypertrophy or thickening (or we might rather say it is the changed direction given the free lateral edge of the nail in consequence of this altered condition), which brings us to the consideration of the most important feature in the early treatment, viz., to remove this thickened condition and thereby allow the increased curvature to pass away. This is done by paring or scraping the nail along this line and also for a short distance to either side of it, down to as near the matrix as possible without producing pain to the patient—or to use an expression of the laity, "almost down to the quick." This should be done thoroughly from the beginning of the exposed portion of the nail to its anterior free edge.

Next trim away all of the lateral edge of the nail that is free, and allow no footwear to be worn that will produce the least amount of pressure on either the toe or nail.

Should there have been produced an ulcer or granulations by the long-continued and severe pressure of the imbedding lateral free edge of the nail, the foregoing must be supplemented by a thorough surgical cleansing of the lesion.

This may be best accomplished by means of an ordinary hypodermic syringe which has had the sharp point of the needle removed. By the use of this the blunt small end of the needle will carry a 1 to 40 solution of carbolic acid (or other antiseptic) to remote portions of the lesion not accessible by other means—especially if considerable force is used in expelling the contents of the syringe.

The placing of a small bit of cotton under the lateral free edge of the nail, which is employed by many surgeons, is to be condemned, as it tends to increase the pressure that the lateral free edge is exerting on the subjacent tissues—thereby increasing irritation, and causing pain and discomfort to the patient. Trim away this free edge as much as possible and let it alone.

Here, as elsewhere, lesions are repaired quickly or slowly according to the general tone of the patient's health. If your patient is physiologically below par, attend to the betterment of his general condition.

In those aggravated forms where the health has been feeble and the inflammation has spread extensively to the matrix, constituting the condition known as onychia maligna, removal of the nail is usually required (under anæsthesia), followed by destruction of the matrix by caustics. Such cases also call imperatively for alteratives, constructives, and hæmotherapy.

Dr. M. Manley Waterhouse, contract surgeon, U. S. Army, writes:

In considering the treatment of ingrowing toe nail it is necessary to consider its ætiology and pathology. It is the best guide to the treatment, both curative and preventive. Some of the literature on the subject states that some cases are hereditary or have an hereditary tendency. Now the nail grows straight out from the matrix, and the term ingrowing toe nail is misleading; there is no such thing as ingrowing toe nail. The sole cause of the mischief is due to the nail being cut too short at the corner. If we have a nail so cut, together with a pressure acting in such a way as to cause an overlapping of the skin, the train of symptoms called ingrowing toe nail will result.

This guides us in the treatment by pointing out the conditions to be overcome; that is, to relieve the symptoms until the nail has time to grow out and be properly trimmed. The treatment is preventive and curative. This condition can certainly be prevented by trimming the nails so the corners will be no shorter than in the middle, or, better still, cutting the free edge of the nail concave. This will leave the corners projecting slightly beyond the skin and prevent overlapping.

Curative Treatment.—When suppuration has taken place the toe must be thoroughly cleansed, preferably with green soap, followed by thorough irrigation with 1-2,000 bichloride of mercury, hydrogen dioxide, or any antiseptic. Our next aim is to prevent direct contact between nail and skin. We can do this by carefully working a small piece of cotton between the corner of the nail and skin, with the aid of the flat end of a probe. The overlapping skin can often be drawn away by attaching adhesive plaster to it and drawing the other end down over the plantar surface of the toe. Both can and should be used at the same time. In suppurating cases a wet carbolic (1-40) dressing should also be applied, as the moisture and anæsthetic effect of the acid render the parts less sensitive. If no pus is present, and the part is not too sensitive, the patient can usually be made comfortable by inserting cotton and the use of adhesive plaster, and be able to be about.

The usual history of a case is that as soon as pain was experienced the patient trimmed the nail still more; this gave temporary relief by changing the point of contact to a less sensitive one, but was prolonging and aggravating the condition. The very opposite must be done, the nail should be allowed to grow out to a point where the skin cannot overlap it.

The practice of removing the nail for this condition should be condemned as wholly unnecessary and often unsuccessful. An operation for removal means the taking of a general anæsthetic and cauterizing of the matrix; the latter is too often not thoroughly done and speedily the nail grows out to give rise to the same condition which existed before. Splitting and scraping the nail are inefficient and unnecessary.

To sum up, our aim should be to make the patient as comfortable as we can by any means we can devise until the nail has grown out, and then trim properly.

Therapeutical Notes.

Methylene Blue in Tuberculous Ulcerative Enteritis.—M. L. Rénon (*Presse médicale,* May 30th) states that in 80 per cent. of this class of cases, he has favorable results with the following:

℞ Methylene blue......15 centigrammes (2¼ grains);
Lactose...............60 centigrammes (9 grains).
M.

One such powder is given daily. The lactose divides the methylene blue and renders it more acceptable to the stomach. Rénon cannot explain the extraordinary controlling action of the blue for, although the diarrhœa decreases at once, the post mortem appearance of the bowel is not materially altered.

For Baldness.— In *Progrès médical* for May 16th, Lyon and Loiseau advise the following, one a lotion, the other an ointment:

℞ Eau de cologne.........200 grammes (6⅔ ounces);
Glycerine..............25 grammes (6¼ drachms);
Tincture of cantharides..10 grammes (150 minims);
Acetic acid.......1 to 2 grammes (15 to 30 minims).
Pilocarpine hydrochloride..½ gramme (7½ grains);
M. For a lotion.

℞ Quinine sulphate............1 gramme (15 grains);
Cacao butter
Castor oil... of each 15 grammes (3¾ drachms);
Essence of violets...............................q. s.
M. For an ointment.

Trachoma.—*Médecine orientale* for May 25th gives Schiele's treatment, as follows: He begins with instillations of iodic acid, 1 to 100. In later stages, the palpebral conjunctiva is swabbed with this solution:

℞ Potassium iodide...........6 grammes (90 grains);
Iodic acid..................5 grammes (75 grains);
Water.................100 grammes (3⅛ ounces).
M.

The granulations are touched with a compressed stick of the iodic acid. Massage of the affected membrane is also practised, after it has been powdered with the following:

℞ Iodic acid..................1 gramme (15 grains);
Sodium iodate.............5 grammes (75 grains);
Boric acid.............100 grammes (3⅛ ounces).
M.

Internally, Schiele gives potassium iodide in the usual doses, but where there are phlyctenulæ and infiltrations, he prefers hypodermic injections of a solution of sodium iodate, 10 to 100. The sclerocorneal complications quickly disappear.

A Sedative.—*Presse médicale* for June 3rd gives the following as an excellent sedative:

℞ Extract of cannabis indica of each 0.10 grammes
Extract of hyoscyamus.. (1½ grains);
Potassium bromide
Chloral hydrate.... of each 10 grammes (150 grains);
Distilled water..to make 200 grammes (6⅔ ounces).
M. F. Mist. A dessertspoonful at bedtime.

An Aperient for Pregnant Women.—*Nouveaux Remèdes* for May 24th ascribes the following to Lutaud:

℞ Castor oil..................30 grammes (1 ounce);
Syrup of rhubarb.........20 grammes (5 drachms);
Alcohol...............15 grammes (½ an ounce);
Essence of peppermint.....................2 drops.
M. To be taken at one dose.

Chlorosis Complicated with Phlebitis.—Carrière of Lille (*Révue française de médecine et de chirurgie,* June 8th), to prevent embolism, puts the child to bed and immobilizes the affected limb after wrapping it in cotton, for thirty days. Along the course of the inflamed vein he applies:

℞ Oil of hyoscyamus..
Chloroform.......... āā 10 grammes (2½ drachms).
Rousseau's laudanum.
M.

For the chlorosis he prescribes a rich diet and his original prescription:

℞ Ferrous oxylate......15 centigrammes (2¼ grains);
Magnesium carbonate.
Powdered gentian.... 25 centigrammes (4 grains);
Powdered rhubarb......20 centigrammes (3 grains).
M. For one capsule; give twice daily before eating.

To assist the absorption of the iron, he gives:

℞ Acid hydrochloric....
officinal............... 3 grammes (45 grains);
Distilled water..........300 grammes (9¼ ounces).
M. Tablespoonful after each meal.

For Whooping Cough.—G. Macridès (*Journal de médecine interne* for June 1st, quoting *Révue médico-pharmaceutique de Constantinople*) has successfully used the following formula in giving bromoform in whooping cough:

℞ Bromoform..............................50 drops;
Sodium benzoate.....
Powdered gum arabic āā...................q. s.;
Syrup of belladonna....25 grammes (6¼ drachms);
Distilled water..........100 grammes (3⅛ ounces).
M. Teaspoonful, 3 or 4 times daily for a child over 6 years of age.

Potassium Iodide Hypodermically in Syphilitic Gumma.—Labadie, La Grave and Rollin (*Journal de médecine interne,* June 1st) have cured a syphilitic gumma without internal medication by the local hypodermic injection of potassium iodide, 2 cubic centimetres daily. The gumma disappeared after the seventh injection. The treatment is extremely painful.

To Administer Quinine to Children.—A French pharmacist states that a good way to administer quinine to children is to mix 1 gramme (15 grains) of the sulphate in a mortar with 8 grammes (2 drachms) of olive oil. Twenty drops of this mixture will contain 5 centigrammes (¾ grain) of quinine. The mixture is poured into a tablespoonful of sugared milk, and will be easily swallowed.

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NEW YORK, SATURDAY, JUNE 27, 1903.

THE LATE DR. ISAAC NEWTON LOVE.

The death of a unique character in the medical profession, such as Dr. Love was recognized to be by all who knew him, calls for more than the formality of an obituary. In our last issue we could do no more than briefly chronicle the news, so late was it received. We doubt if even now the profession realizes that one of its great leaders has passed away, so difficult is it to conceive of the versatile and animated Love as swept from the face of the earth.

By far the greater portion of Dr. Love's career was enacted in St. Louis, where he had been virtually reared by the late Dr. John T. Hodgen. Some four years ago he essayed the hazardous experiment of moving the scene of his activity to New York, in which he was successful beyond the most hopeful expectation. But it would be wrong to think of him either as Love of St. Louis, or as Love of New York; he was Love of the whole United States, for never did there live a member of the American medical profession more widely known or more generally admired.

Dr. Love's personality was fascinating. Alike with his professional brethren and with men of all walks of life, he exerted a magnetism rarely approached and never surpassed. The greater number of the men who had come in contact with him may have supposed that this influence was exerted mainly if not wholly in society debates or in after dinner speeches; but such a supposition would be wholly incorrect, for in personal encounters he was a power to carry point upon point. Moreover, at the bedside, where, after all, he chiefly shone, he was always the dominant spirit.

Dr. Love owned and edited the *Medical Mirror* be ignored. The *Mirror* brought its editor into late years. To one who knew Love there has constantly beamed in its pages an earnestness not to be ignored. The *Mirror* brought its editor into close and genial touch with a host of readers; by its instrumentality those who had not had the good fortune to know Dr. Love personally were made to discern his astuteness and his greatness of heart.

Dr. Love had his foibles, as which of us has not? But of Abou Ben Adhem it has not been more truly written "that he loved his fellow men." The world of medicine is the better for his having lived in it. Let us hope that a new Love will arise in our profession.

THE SUBSTITUTES FOR DIGITALIS.

Convenient as it is to use this term, it is important to bear in mind that probably not one of the so-called substitutes for digitalis can be looked upon as in every respect capable of taking the place of that drug. Each of the various cardiac roborants seems to have peculiar qualities of its own, and when we use a reputed substitute for digitalis we are really resorting to a line of medication different from what we could carry out with that remedy. This is properly insisted upon in an article published in the *Journal des praticiens* for May 23rd, by Thomas, of Geneva, although, curiously enough, he seems to have overlooked adonidin, which probably comes nearest to being a real substitute for digitalis.

We presume that few observers will dissent from M. Thomas's statement that digitalis is *facile princeps* among the drugs employed to sustain the strength and regularity of the heart's action, exerting its effects upon the heart, the vessels, and the pneumogastric nerve. Properly timed and prescribed on well defined indications, he remarks, it does its work perfectly; if in any instance it does not, he regards the case as not very hopeful. He admits, however, that the so-called substitutes are useful, since digitalis acts rather slowly, accumulates in the organism, and does not readily lend itself to subcutaneous use.

Caffeine is the first of the substitutes considered by M. Thomas. The best account of the therapeutical action of this alkaloid, he thinks, has been given by Bock, of Copenhagen. That author experimented upon the isolated heart of mammals, and showed that caffeine diminished the muscular elasticity of the organ, causing it to become more rigid and to relax with less facility. In consequence, the volume of the pulse, that is to say, the amount of blood leaving the heart at each contraction, is diminished; in spite of heightened frequency of the pulsations as a result of excitation of the accelerator ganglia, the blood pressure tends to become lowered. In this respect caffeine exerts an action the direct opposite of that of strophanthine. Aside from its diuretic action, caffeine is useful in such sudden cardiac insufficiency as is shown in the course of infectious diseases; a salutary vasoconstriction is excited, and the acceleration of the heart beats makes amends for those incomplete contractions which account for the slow and intermittent pulse. When such an infectious disease as influenza occurs in a person with chronic heart disease, caffeine is urgently indicated, but the condition of the cardiac muscle must not be neglected; if with caffeine we excite a more or less senile or degenerated heart, and in addition produce intense vasoconstriction, we are running the risk of accidents. Moreover, M. Thomas questions the utility of large doses.

The author regards sparteine as of incontestable value in the cardiac weakness and irregularity of typhoid fever. Regulating the action of the heart and slowing it while augmenting the energy of its contractions, it gives the organ the strength indispensable for the struggle. As it does not excite the central nervous system and acts less intensely than caffeine on the vasomotors, it may safely be given to excitable persons and to those whose cardiac muscular tissue has undergone anatomical change. It is of value as a diuretic also, though less energetic than theobromine. Strophanthus is variable in its action, and this is probably due to the lack of a preparation that is always the same; sudden syncope is not rare under its use, and it irritates the kidneys. The remainder of M. Thomas's article deals with such of the lesser cardiac roborants as camphor, hydrastis, and ergotine.

A DISTINCTIVE BADGE FOR MEDICAL MEN.

A correspondent in the *Lancet* for May 23rd suggests the wearing by medical men of some distinctive badge which will enable them to be easily recognized in a crowd or in public places in cases of accident. He relates, in support of his suggestion, a case where a surgeon of eminence, witnessing an accident, went to the assistance of the injured man, but, "on seeing a well dressed gentleman in a frock coat and silk hat rush up and take charge of the injured man," retired without making himself known, leaving the case, as he supposed, in the hands of a brother medico. In the event, it turned out that the "well dressed gentleman" was not a medical man at all, but a commercial traveler, who had been actuated merely by instincts of humanity, and who afterwards confessed that he had suffered great uneasiness as to the possible results of his amateur treatment. The correspondent submits to the *Lancet* some designs, "drawn on the heraldic model, for badges to be worn presumably on the watch chain." The devices are described by that journal as "ingenious," for they are said to give a clue as to which of the forty or fifty varieties of medical diploma open to the British physician, the wearer may hold. We are afraid that American physicians in general would find themselves as much at sea in deciphering the symbols of all these various diplomas as they are in grasping the distinctions in the diplomas themselves. The correspondent's idea is not a bad one; and we ourselves have advocated something of the sort; but, if adopted at all, would it not be better to have an international badge, on the order of the Geneva cross, something that would be recognizable in all countries alike? However particular we may be in the choice of a physician in moments "of election," we are not likely, under the circumstances in which such a distinguishing mark would be apt to be a boon to humanity, to stop to consider the nationality, much less the varying schools of that nationality or the various grades of those schools, to which the profferer of "emergency" aid belongs. On the whole, though, the suggestion seems to us to be worthy of consideration.

THE INDEX FOR THE NEW YORK MEDICAL JOURNAL AND PHILADELPHIA MEDICAL JOURNAL.

It has been found necessary, owing to the stress entailed by the consolidation of the *New York Medical Journal* and the *Philadelphia Medical Journal,* to delay the publication of the index for the consolidated journal until the July 4th issue. As it will be entirely separate from the *Journal* for July 4th, it will be available, as usual, for binding with this volume.

The separate index to the uncompleted *Philadelphia Medical Journal,* vol. xi, will not be published until later, as stated in our last issue. Those desiring copies thereof are requested to notify us at once, in order that the publishers may know how many copies will be required to meet the demand.

PAROTIDITIS WITH METASTASIS TO THE OVARIES.

While the so called metastasis of parotiditis to the testicle of the male is by no means very uncommon, an analogous transference in the female is decidedly rare, so far as published cases go. Dr. George McNaughton reports such a case in the *Brooklyn Medical Journal* for March. After a full review of the recorded cases, he concludes that it is probably rather to the comparative inaccessibility of the internal genitalia in the female, than to any actual rarity of the condition that the absence of such recognition is due. It seems to us likely that there is much truth in this contention. It must be remembered that mumps occurs chiefly in young people, and more frequently in males than females, and that the natural tendency of young girls is to conceal any "internal derangements" from which they may suffer. Probably a more systematic search by family physicians and others under whose care such cases are likely to come would reveal a much greater frequency of such metastases than has hitherto been recognized.

AGAIN THE DOCTOR IN GENERAL LITERATURE.

We have often expressed our satisfaction at the essays of doctors in general literature. The latest example that has come to our notice is an excellent story by Dr. William W. Pennell, of Fredericktown, Ohio.[1] It is that of a well equipped young physician, who, having settled in an Ohio town of small size, meets with almost unheard of difficulties brought about by the machinations of certain ignorant old practitioners and their lay accomplices. He finally triumphs over them, and scientific medicine dominates quackery in the village. The story, which is remarkably well told, is, of course, particularly interesting to physicians, but it can hardly fail to interest well informed people in general.

ELBOW ROOM NEEDED FOR SURGERY.

Annette Burke Richmond, in an article on the new St. Elizabeth's Hospital, Shanghai, published in the June number of the *Spirit of Missions,* gives interesting expression to the desire for elbow room in surgery when she says: "We think of the old 'women's wards,' with dark passages and unexpected steps up and down, with a few inconvenient foreign rooms here and a few rough Chinese rooms there, with a drug room only equalled for lack of size by the office behind it, with an operating room of which it was once said that when doctor, assistant, patient, and instruments were all there, the windows had to be opened to give room for the doctor's elbows."

GELATIN INTERNALLY IN HÆMOPHILIA.

If the result was not a mere coincidence in a case reported by Hesse (*Therapie der Gegenwart,* September, 1902; *Zentralblatt für innere Medizin,* April 25th), it must be admitted that the prolonged internal administration of gelatin holds out a prospect of cure in this disease. The patient, a child eight years old, was an hereditary "bleeder." He had often had profuse hæmorrhages, and he could not walk for more than half or three quarters of an hour without effusion of blood taking place into the joints. Various forms of treatment had been tried without benefit, when he was ordered to take daily six ounces of a 10 per cent. solution of gelatin. In a year there were signs of improvement, and the final result was a virtually perfect cure. The gelatin solution was flavored with lemon juice or the juice of some other fruit. Probably almost any one of the household jellies would have done as well.

FREYER'S ENUCLEATION OF THE PROSTATE.

So far as we are aware, no account has hitherto been published of Freyer's suprapubic enucleation of the prostate as having been performed in America. On June 12th Dr. R. Stansbury Sutton, of Pittsburgh, enucleated the entire gland through a suprapubic incision, using, after the incision, the fingers only. The gland was as large as a turkey's egg. The patient was in the care of Dr. Joseph Dickson and Dr. N. Shillito. Dr. Dickson opened the bladder and supported the prostate from the rectal side during the operation. The patient was seventy-four years old.

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[1] *The Buckeye Doctor.* A Tale for Physicians and for Physicians' Patients. By William W. Pennell, M. D. New York: the Grafton Press

News Items.

Society Meetings for the Coming Week:

TUESDAY, *June 30th.*—Rome, N. Y., Medical Society.

WEDNESDAY, *July 1st.*—New York Academy of Medicine (Section in Public Health); Medical Society of the County of Richmond, N. Y. (New Brighton); Harlem Medical Association of the City of New York; New York Genitourinary Society; Bridgeport, Conn., Medical Association.

THURSDAY, *July 2d.*—Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Atlanta Society of Medicine.

FRIDAY, *July 3d.*—Clinical Society of the New York Post-graduate Medical School and Hospital; Manhattan Clinical Society.

NEW YORK, CITY AND STATE.

Change of Address.—Dr. Jerome Morley Lynch to 42 West Fiftieth Street, for the summer.

Erratum.—In Dr. Kilmer's article on the Treatment of Whooping Cough, in our issue for June 20th, the descriptions of the cuts were unfortunately transposed. The second illustration should read "Elastic abdominal band," and the third "Elastic abdominal and chest bands."

Saint Elizabeth's Hospital Condemned.—Among the buildings to be razed to allow the erection of the new tunnel station of the Pennsylvania Railroad is Saint Elizabeth's Hospital, on Thirty-first Street.

Gratuitous Antitoxine Treatment.—Justice Truax in the Supreme Court, has decided that no charge may be made by physicians for the injection of antitoxine when it has been obtained from the city free of cost.

A Bequest to the Brooklyn Eastern District Hospital.—By the will of George A. Brown, a builder, the sum of $1,000, through the death of a legatee, reverts to the Brooklyn Eastern District Hospital and Dispensary.

Dr. Lorenz's Departure.—In spite of reports to the contrary, we are assured that Professor Lorenz does not sail for Europe till July 7th. He is at present staying at the Murray Hill Hotel, New York.

Apnœa in One of Dr. Lorenz's Cases.—While operating in the City Hospital, Rochester, on a child eight years of age, Dr. Lorenz was obliged to resort to artificial respiration. The child had a congenitally weak heart. Before continuing the operation, Dr. Lorenz stated he had lost two cases in one thousand from failure of respiration.

Trachoma in Buffalo.—According to a statement of an official of the United States Marine Hospital, more than one hundred cases of "pink-eye" or trachoma, have been found among the employees of the Lackawanna Steel and Iron Company, in Buffalo, N. Y. It is supposed that the disease was brought here by immigrants coming by way of Canada.

A New Hospital on Randall's Island.—A two-story brick and marble hospital will be erected in the central portion of Randall's Island, opposite One Hundred and Twenty-first Street, at a cost of $30,000. The city will be the owner.

Nurses Graduated.—On June 16th, the following men and women received diplomas as trained nurses from the Buffalo State Hospital: Miss E. Bertha Fischer, Miss Harriette Green, Miss Laura Klute, Miss Emma Williams, Miss Marie McEachren, Miss Christeen Middleton, Miss A. Mae Little, Miss Evelyn M. Haines, Miss M. Margaret Ryan, Mrs. Edith G. Densitt, Mrs. Nora M. Potter, George H. Toulson and Charles P. Harding.

Funeral of Dr. Love.—The funeral services for Dr. Isaac Newton Love, who died on the steamship *Aurania,* were held on Monday afternoon, June 22nd, at St. Paul's Methodist Episcopal Church, at Eighty-sixth Street and West End Avenue. Many prominent physicians and his fellow members of clubs were present. The pall bearers were Dr. Edward Wallace Lee, Dr. John H. Girdner, Charles Marchand, Paul Hafnee, Hector H. Hume, B. T. Whitmore, and Dr. Walter Wyman, surgeon-general of the Marine Service at Washington, D. C. Floral offerings were sent by the Lotos and Colonial Clubs, the American Medical Association, and the American Medical Association of Editors. The body, temporarily placed in a vault in Woodlawn Cemetery, will be removed to St. Louis.

Manhattan Maternity Hospital.—The new Maternity Hospital to be built in East Sixtieth Street, near First Avenue, will, it is expected, be ready for occupancy about Thansgiving Day. It will be an educational institution as well as a thoroughly equipped hospital for critical cases of surgery and obstetrics. The scope of the work as planned by the board of governors and Dr. Russell Bellamy will comprise a training school for nurses, students, and physicians who wish to study the varied and complicated cases to be found in tenement house districts. The hospital is the gift of a patient of Dr. Bellamy, whose one stipulation was that his or her name should not be revealed. The board of governors are: President, Moses Taylor; Colonel Daniel S. Lamont, H. S. Thompson, Cornelius Vanderbilt, Henry Taylor, William Sloane, Frank L. Polk, and Percy R. Pyne.

College of Physicians and Surgeons, Columbia University.—Dean McLane, assisted by Professors Cragin, Huntington and Starr, has been rearranging the medical curriculum. Hereafter all matriculants must have completed a three years' scientific course in some college or pass the Columbia entrance examinations. A new department of therapeutics and pharmacology is to be established under Professor Christian A. Herter. The resignations of Dean McLane and Professors Tuttle, Peabody, and Weir have been announced, but Professor Weir will continue to lecture on clinical surgery. Dr. Cragin has been appointed professor of gynæcology, Dr. Holt, of diseases of children, and Dr. James, of medicine. President Butler urges strongly the establishment of a hospital that will be under the control of the faculty, that the students may not have to depend solely on the various city hospitals for clinical instruction.

New York State Medical Association.—The fourth district branch of the association met in Buffalo on June 16th, about one hundred physicians being present at the opening exercises. The counties represented by the different delegates included Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Monroe, Orleans, Steuben, Wayne, and Wyoming. The following officers were elected: President, J. W. Morris, of Jamestown; vice-president, Bernard Cohen, of Buffalo; secretary, William Irving Thornton, of Buffalo; treasurer, H. A. Eastman, of Jamestown. With the exception of Dr. Eastman, all the officers had served on the previous board. The delegates to the State convention to be held in New York city in October also elected were Dr. A. A. Hubbell, of this city, and Dr. George L. Preston, of Canisteo. The first paper was read by Dr. Samuel M. Brickner, of New York city, the subject being The Obstetric Significance of Retroversion and Retroflexion of the Uterus. A strong argument was made by Dr. Brickner against the retention of the dorsal decubitus after childbirth, especially for the length of time insisted on by many physicians. Dr. Brickner's argument was endorsed by Dr. Frederick, of Buffalo, who said he permitted his patient to assume the most comfortable position from the outset. The paper was a surprise to many physicians present, as it overturned long established custom. Other papers were read by Dr. Phelps, of Buffalo, on Intestinal Obstruction; Dr. Allen A. Jones, of Buffalo, on Spurious Gastric Symptoms; Dr. Arthur B. Duel, of New York, on Chronic Suppurative Otitis; Dr. Parker Syms, of New York, on Prostatectomy; Dr. Charles B. Phillips, of Hornellsville, on Pseudo-Myelitis; Dr. William A. Macpherson, of Leroy, on Smallpox, and Dr. F. Park Lewis, of Buffalo, on Ocular Incoordination and Cerebral Reflexes. These papers were all followed by discussions.

State Commission in Lunacy, New York.—At the recent meeting of the State Commission in Lunacy, the following subjects were discussed: Recent progress in matters pertaining to the care of the insane in the State of New York. Some of the measures of improvement in the case of the insane of the State of New York that have been carried through within the past few months are as follows: 1. The Pathological Institute has been reorganized and more than sixty of the medical men connected with the staffs of the fourteen State hospitals have during the past winter attended the Institute on Ward's Island for the study of psychiatry along clinical, pathological, and psychological lines. The legislative appropriation for the Institute is now $25,000 annually. 2. The hospitals have been opened to medical internes in the same manner as general hospitals. Last year sixteen clinical assistants entered the service as internes and this year about thirty. 3. The legislature recently passed the Lunacy Commission's bill for the appointment of a medical inspector to ensure a more thorough inspection of the thirty-nine institutions under its charge, viz., twenty-three private retreats, two criminal asylums, and fourteen State's hospitals for the insane. The inspection has, hitherto, been inadequate. 4. To remedy overcrowding the lunacy commission proposes constructing a new hospital in the territory north of Albany and Troy, on the colony system, similar to the Craig colony for epileptics. The site will be selected and plans made this year, and the colony will, it is estimated, contain from 1,500 to 2,000 patients within the next three years. 5. Three tuberculosis hospitals, each with a hundred beds, will be constructed this summer at a cost of $90,000, at Middletown, Utica, and Binghamton, on the grounds of the State hospitals in those cities. The plans made by Dr. Peterson and the State architect embody the main features of such hospitals as described in the King Edward Prize Essays. In the meantime tent-life for the tuberculous insane has been tried at the Manhattan State Hospital, East, under Dr. MacDonald for the past two years, and for a shorter period at Binghamton and other hospitals in the State. 6. The country colony for a few of the working classes of the insane, as an offshoot of the Utica State Hospital, has been enlarged. A similar colony has been established at the Willard State Hospital, and two are in existence at the State hospitals at Binghamton and Poughkeepsie. 7. A summer camp has been created this year for from forty to sixty insane patients on the lake shore about fifteen miles from Rochester State Hospital and is now in operation. 8. Two additional nurses' homes will be put up this summer, as they have been found to be a valuable addition to some of the hospitals. One of these will be at King's Park State Hospital, for 500 nurses, and one at the Gowanda State Hospital to accommodate 100 nurses. 9. Residences for superintendents and separate houses for the medical staffs will be built this season at six or seven of the State hospitals, and the space previously occupied by them utilized for patients. 10. A bill providing for emergency commitments, recommended by the lunacy commission, was passed by the legislature at the last session. Copies of this law have been sent to all the examiners in lunacy of the State. It is believed that this will mean great good to the insane and prevent the only too frequent incarceration of urgent cases in jails and station houses. 11. The improvement in the food supply brought about during the past six months, while entailing an additional cost to the State of $100,000 per year has been of untold benefit to the patients and added greatly to the satisfaction of the medical officials and visiting boards. 12. A strong effort is being made by the lunacy commission to increase the deportation of alien insane, and through their efforts a law has been passed by the Federal Government by which an immigrant becoming insane within three years of landing in the United States may be returned to his own country. 13. The movement for the establishment of reception hospitals for acute curable cases in the larger cities has gained ground. Although the bill to provide for a psycopathic hospital in New York city failed to pass, it is believed that it will pass the legislature next year.

PHILADELPHIA AND PENNSYLVANIA.

Change of Address.—Dr. Justus Sinexon to 114 South Eighteenth Street, Philadelphia.

Operation for Collateral Circulation.—Dr. Edmund Holmes, at the Samaritan Hospital, in a case of aneurysm of the transverse arch of the aorta, ligated the common carotid and the third portion of the subclavian. He was assisted by Dr. Charles O'Reilly. The patient, who is thirty-five years of age, and of rheumatic diathesis, is expected to make a good recovery.

A Campaign against Germs.—Dr. A. C. Abbott, of the Bureau of Health, has determined to send out cards to every household in the city, reconmending them to boil all water used for domestic purposes, if they would safeguard against typhoid, with the additional suggestion that all milk vessels, bottles, etc., should be washed in boiling water.

Bryn Mawr Hospital Association Meets.—The annual meeting resulted in the election of the following trustees: A. J. Cassatt; C. A. Griscom; T. Wistar Brown; J. Randal Williams, Dr. George S. Gerhard; James Rawle, Joseph R. Townsend, Jr., Frank W. Paul, Rudolph Ellis, B. Frank Clyde, Frank T. Patterson, T. De Witt Cuyler, Effingham B. Morris, George W. Childs Drexel, and C. Hartman Kuhn.

The Philadelphia County Medical Society.—A stated meeting of the society was held in Philadelphia, on June 24th. The following paper was read by Dr. Charles F. Nassau, Ligation of Subclavian Artery for Aneurysm of Second and Third Portions, with exhibition of patient. The regular meeting of the South Branch was held at Odd Fellows Hall, Philadelphia, on June 26th, Dr. Alfred Stengel presenting a paper on Rheumatism, its Diagnosis, Complications and Treatment.

Philadelphia Smallpox Chart.—Dr. A. C. Abbott, chief of the health bureau, Philadelphia, has prepared a chart to show the smallpox area. It is noticeable that in wards where vaccination has been rigorously practised, there are no cases, while in the twenty-eighth ward where the inhabitants refuse to submit, the disease is most prevalent. In the twenty-eighth ward, there have been since June 1st, 33 cases; in the twenty-ninth, 5; thirty-second, 9; thirty-eighth, 12; thirty-seventh, 3; thirty-third, 6; nineteenth, 5; twentieth, 4; twenty-second, 3; second, 3; fifteenth, 3; sixteenth, 2; thirty-sixth, 2; thirteenth, seventeenth, tenth, nine, seventh, and first, 1 case each.

The University of Pennsylvania is made the Residuary Legatee by the Will of Dr. Spencer Morris, of Mount Morris, Greene County, Pa.—Dr. Morris was a graduate of the medical department of the University of Pennsylvania of the class of 1871. The interest of the amount received by the University of Pennsylvania is to be given, at the annual commencement, to that medical student of each year's class who shall pass the best examination for the degree of doctor of medicine, the prize to be known as "The Dr. Spencer Morris Prize." It is estimated that the annual value of this prize will approximate $400. The trustees of the university expect to make the first award upon commencement day, 1905.

The College of Physicians.—With the end of this month the meetings in the College of Physicians will be suspended until October. During June, July, August, and September the Section in Medicine will have no meetings. The monthly meeting of the College of Physicians will be suspended in July and August. There will be no more meetings of the Section in Otology until October. The Sections in Ophthalmology and Gynæcology will not convene until October. The County Medical Society will resume its meetings in September; the Academy of Surgery in October; the Pathological Society in September; the Neurological Society in October; the Obstetrical Society in September; and the Pædiatric Society in October.

The Late Dr. Thomas G. Morton.—The following minute has been adopted by the faculty of the Philadelphia Polyclinic and College for Graduates in Medicine: The faculty of the Philadelphia Polyclinic and College for Graduates in Medicine desires to place on record its sense of deep loss in the death of Dr. Thomas George Morton, one of the founders of the institution, and throughout the period of its existence successively professor and emeritus professor of orthopædic surgery. Dr. Morton was an original and a progressive surgeon, a bold yet conservative operator, and he possessed and exercised the qualities of the highest type of physician. Refined and gentle in manner, courteous and considerate in bearing, positive and forceful in act, he was esteemed by colleagues, respected by pupils and beloved by patients.

Charity Hospital.—At the annual meeting on June 18th, the following officers and trustees were chosen: President, Isaac S. Sharp; vice-president, Alexander H. Morgan; secretary and treasurer, William L. Thompson; medical director, Dr. Joseph H. Lopez; trustees, Isaac S. Sharp, Alexander H. Morgan, Dr. Joseph H. Lopez, George H. Colket, Francis F. Milne, H. J. Verner, Dr. H. St. C. Ash, George Lee, William L. Supplee, Clarence L. Harper, Antoine Bournonville, Dr. H. Y. Evans, Elihu C. Irvin, Henry C. Terry, William Super, Jr., and William B. Thompson. The institution has never received State aid, and its trustees hope that its widespread benefactions will commend it to the attention of the charitably inclined. Ten thousand two hundred and fifty-nine patients have been treated during the fiscal year, and 9,682 prescriptions dispensed gratuitously.

The Condition of the Schuylkill River.—In our issue for June 20th, we referred to Dr. Abbott's tour of inspection. This tour was finished on the 17th, and disclosed the fact that the greatest source of danger lay at the doors of the city.

The pollutions of the stream beyond Flat Rock dam are said to be, though serious enough in themselves, of minor importance to those arising within a mile of the intake of the Queen Lane pumping station. Dr. Wessels intends to ask for a sufficient number of men to investigate the condition of the section that includes the Manayunk Canal and the Philadelphia bank of the Schuylkill below Flat Rock. One specific instance of pollution was found in a Chinese laundry building, which had a defective closet in the basement from which matter passes directly into the canal. Waste pipes and overhanging water closets were also found discharging over the canal; and pig styes, dump heaps, and other sources of pollution in close proximity.

New Philadelphia Graduates in Medicine.—The following had the degree of Doctor of Medicine conferred upon them by the University of Penna., on June 17th:

James Franklin Allen, Gurdon Spicer Allyn, Louis Maxson Allyn, Walter Haskell Andrus, Will Henry Anthony, George Mason Astley, Benjamin Franklin Baer, Jr., Howard Spaulding Ballard, Theodore C. Baumbauer, Ralph Bernstein, Edwin Emil Bisbort, James Douglas Blackwood, Jr., William Augustus Boyd, Alexander John Carroll, Rafael Santiago Ramon Carulla, David Clark Cather, James Irving Chapin, William Lawrence Clark, Eugene Calixte Cloutier, Charles Percy Colby, Julius Hiram Comroe, Karl C. Corley, Henry Molyneux Cullinan, Lyn Walter Deichler, Charles Jacob Dietrich, Charles McClure Doland, Henry Cuttino Dozier, Charles Warren D. Duval, Henry C. Earnshaw, John Thomas Eckert, Jr., George Martin Edwards, Francis Ashley Faught, Harry Spaulding Fish, John W. Gordon, Herlwyn Ruggles Green, Daniel Chester Groves, John Jay Harington, Thomas George Harris, Fred Abram Hartung, John Greenleaf Webb Havens, William Stager Helman, Frederic N. Henderson, Howard Kennedy Hill, Daniel Edgar Hottenstein, Tasker Howard, Jorge Lara Iraeta, Ralph Ross Jordan, Joseph Jeremiah Kane, Howard Thomas Karsner, John Brooks Kaufman. Charles Douglas Kayser, James Anthony Kearney, David H. Keller, Alexander Ralph Kennedy, Norman Leslie Knipe, Victor John Koch, Oscar Landauer, Mauro R. Fernandez Le Cappellain, Walter Crispin Lippincott, William Humphrey Mackinney, Jere Francis McAvoy, Samuel McClary, 3d, Donald Gilbert McCaskey, Dennis Ralph McElhinney, Harrie Brenneman Martin, Fred Lee Roy Mattern, Ralph Kleckner Mead, James Charles Mevay, John Andrew Murphy, Louis Bernhard Nielsen, Edward Irvine Noble, Harry Zebulon O'Brien, Benjamin Stuart Paschall, Sumner Chadbourne Pattee, Alexander Hamilton Peacock, Ralph Pemberton, Edward Roberts Plank, Francis Davenport Pringle, Howard Alden Reed, Albert Whipple Rew, William Dickie Richmond, Joseph England Roberts, Jr.. Napoleon Bertrand Ross, Frank Garfield Runyeon. John Semple Sharpe, Frederic C. Sharpless, Andrew J. Sherwood, Penn Gaskell Skillern, Jr., William Daniel Snicely, Jacob Daniel Snyder, Edwin McDonald Stanton, Charles Christian Stauffer, George William Stimson, Charles Irvin Stiteler, Elwood Palmer Spencer, Merrill Alpheus Swiney, Henry Russell Tarbox, Horace Furness Taylor, Benjamin Abraham Thomas, Wellington Andrew Thompson, Linton Turner, Joseph Smith Van Dyke, Jr., William Berry Whetstone, William Whitaker, William B. Wilcox, Herbert Heisler Wilson, Arthur Roy Woods, Fred James Wort, Jr., George Austin Wyeth.

CHICAGO AND ILLINOIS.

The Faculty of the College of Physicians and Surgeons of Chicago.—Dr. W. L. Ballenger has been elected to the chair of otology, rhinology and laryngology, to fill the vacancy made by the resignation of Professor M. R. Brown.

Medical Students as Waiters.—The waiters' strike in Chicago made it necessary for the alumni of the Northwestern University Medical School to conduct its own annual banquet at the college building, instead of holding it in the Auditorium as in former years. A hundred sophomores volunteered their services as waiters.

The Ozone Treatment of Water.—The Chicago health department suggests a trial of the ozone system in use in Germany for purifying the water. It is said that the system has passed the experimental stage and should be tried here. The germs of typhoid fever, Asiatic cholera and dysentery are said to be unfailingly killed by ozone.

The Chicago Health Department and Fourth of July Tetanus.—The Chicago health department's bulletin again cautions the public on the care of "Fourth of July" wounds. It suggests a thorough surgical treatment of blank cartridge wounds, supplemented by prophylactic injection of tetanus antitoxine when possible, and that all wounds be kept open until thorough medical treatment has been secured.

The Chicago Medical Society.—The annual meeting of the society took place in Chicago, on June 17th. For the first time in its history the society elected two women physicians as members of the board of councilors. Dr. Frances Dickinson and Dr. Rachel Hickey Carr were elected councilors for one year in addition to Dr. W. L. Ballenger, Dr. William Harsha, Dr. N. S. Davis, Jr., Dr. Weller Van Hook, Dr. A. E. Halstead, Dr. C. F. Bacon, Dr. W. A. Evans, Dr. Frank Billings, Dr. A. R. Edwards, and Dr. Adolph Gehrmann.

Rush Medical College Honors.—Dr. Phillip Arthur Reppert, of Chicago, was awarded the Benjamin Rush medal for the highest scholarship during the last four years at the Rush Medical College graduation exercises, in Chicago, on June 17th. He was selected for the honor from a class of 227. In 1901, Dr. Reppert was awarded the Freer medal, it being the first time in the history of the institution that one student has won both medals. On entering the Rush College five years ago at the age of thirty-eight, the dean feared Dr. Reppert would fall behind in the classes, but the event proved the contrary.

A Modified and Pasteurized Milk Plant for Chicago.—The Pure Milk Commission in Chicago, comprising the names of some of the most prominent physicians of Chicago and Illinois, as well as those of women philanthropists, among others Miss Jane Addams, of Hull House, after a series of investigations have formulated plans for the establishment of Pasteurized and modified milk stations throughout the city. The Pasteurizing apparatus is the gift of Nathan Straus, of New York, who has established a similar plant in that city. The milk will be furnished to mothers at the cost of production, in feeding bottles of various proportions, each bottle being furnished with a nipple, both bottles and nipples being thoroughly sterilized on being returned to the station before being refilled. It is hoped by this means to reduce the enormous rate of infant mortality that prevails in summer in Chicago, as in all large cities.

A Chicago Surgeon Dies of Blood Poisoning.—Owing to an imperceptible defect in a rubber glove used during an operation, on May 14th, and a slight abrasion due to a hangnail on the finger, Dr. Nelson H. Henderson contracted blood poisoning, in consequence of an operation that he performed for virulent septicæmia, on a hospital patient from Whiting, Ind. The patient died within twenty-four hours, and three days later a soreness manifested itself on Dr. Henderson's finger, and on June 24th he died from blood poisoning.

The Chicago Health Department and the Milk Supply.—The Chicago health department in its weekly report contains points for which the department has been contending for eight years. The most essential amendment provides that pouring cans for skimmed milk shall be painted bright red. The color of the can thus will give due notice to the purchaser and greatly aid the work of inspection. Other amendments require the sterilization of all vessels and other articles used in handling milk or cream; forbid the storage of milk or cream in the farmer's delivery cans, hotels, restaurants and bakeries, and make more elastic the character of the punishment for violations of the ordinance. The department calls attention to three things that should be considered by purchasers: 1. All vessels, pitchers, bowls and bottles should be scalded before milk is put into them. 2. Never mix new and old milk or cream together. 3. If milk be intended for children, pasteurize enough for the last part of the day by putting it into a freshly scalded bottle, stoppered with a wad of clean cotton-wool or covered with two or three thicknesses of cheesecloth.

Illinois State Board of Health.—Springfield, Ill., June 24.—Under the provisions of a law enacted by the last General Assembly, which will be in force on and after July 1st next, physicians and midwives are required to report births to the county clerks, except in the cities of Chicago and Peoria, in which reports will be made to the commissioner of health. A fee of twenty-five cents will be paid for each birth reported.

The State burial permit law of 1901 has been repealed, to take effect the first of next month. Under the new law, physicians, midwives, and coroners are required to report deaths direct to the State board of health, except in cities which have burial permit ordinances. In these the local authorities are required to send each month to the State board of health all certificates of death presented to them. A fee of twenty-five cents will be paid to physicians and midwives for each report of death made. It is the duty of the State board of health to forward all certificates of deaths to the county clerks for final record.

Eighty seven thousand, two hundred and thirty-six births were reported, a rate per 1,000 of 17.90. The greatest number was reported from Lawrence county, where the rate was 31.09 to the 1,000. Johnson and Wabash followed closely with a rate of 29.62 and 28.41 respectively. Cass county boasts of the lowest record 10 to the 1,000. The rate in Cook county was 16.17 per 1,000. It is not asserted by the State board of health that these figures represent the actual number of births occurring in the State during 1902. It is well known that many physicians and accoucheurs fail to report births. The results are considered satisfactory, however, for the first year of the registration law. These births were reported under a voluntary system of notification.

The State board of health has just issued its report of the births and deaths in the State during the year 1902. In concert with all other registration States, Illinois has adopted the Bertillon classification of deaths. The total number of deaths registered during 1902 was 61,144, a rate of 12.54 per 1,000. The ten counties showing the maximum death rate are Massac 19.08, Alexander 17.93, Pulaski 17.05, White 16.61, Union 16.21, Morgan 15.05, Franklin 14.97, Adams 14.48, Sangamon 14.49, Crawford 14.30, The minimum is found in the following ten: Ogle 7.19, Ford 7.22, Kendall 7.30, Henderson 7.61, Brown 8.18, Jo Daviess 8.29, Tazewell 8.40, Jackson 8.52, Livingston 8.67, Woodford 8.72. The Cook county rate is 13.84 to the 1,000 based on an estimated population of 1,968,097.

The ten principal causes of deaths in the order of their importance are as follows: tuberculosis, pneumonia, organic heart disease, accidents, kidney disease, gastroenteritis in infants, cancer, typhoid, cerebral congestion and hæmorrhage, diphtheria.

The statistics show that 6,868 persons died of tuberculosis, this number being 11.23 per cent. of all deaths or 1 in every 8.90 deaths. By age the destruction from this disease was greatest from twenty to forty years, 51.2 per cent. of the deaths being reported during this period. It is the opinion of the State board of health that the reported death rate from tuberculosis is too low, and that many deaths reported as pneumonia, bronchitis and influenza were due to tuberculosis.

GENERAL.

Wisconsin College of Physicians and Surgeons.—At a meeting of the board of directors of the Wisconsin College of Physicians and Surgeons on June 15th, Dr. A. J. Burgess was chosen to fill the chair of clinical gynæcology, made vacant by the resignation of Dr. Thomas Fitzgibbon.

Smallpox in Bordentown, N. J.—The State Board of Health in Trenton, N. J., has been called on to assist in checking the spread of smallpox in Bordentown, the disease having apparently got beyond the control of the local authorities. There are now twelve cases, and a number of suspects owing to lack of isolation, when the disease first appeared.

Medical Library Association.—The Medical Library Association, newly organized in Cincinnati held its second meeting in the library of the City Hospital, in Cincinnati, on June 17th.

New Ward in Grady Hospital, Atlanta.—The order of Old Fashioned Women have erected an annex to the Grady Hospital in Atlanta containing thirty beds for maternity cases, in addition to handsome operating rooms.

The Burrage Hospital, Boston.—A hospital for sick children under the name of the Burrage Hospital, was opened on June 17th on Bunkin Island, in Boston Harbor, by the superintendent, Dr. T. M. Strong. Patients will be received daily until September 15th.

Railway Surgeons Convene.—The fourteenth annual convention of the Baltimore and Ohio Association of Railway Surgeons took place in Cleveland, Ohio, on June 15th. Business was transacted and technical papers discussed. One hundred and fifty surgeons were present.

The Tazewell Co., Va., Medical Society.—The annual meeting of the society took place on June 16th. Dr. J. A. Painter, of Liberty Hall, was elected president for the ensuing year, and Dr. George Ben Johnston, of Richmond, was made an honorary member.

A Finsen Light Hospital for Chicago.—An institute for phototherapy, or healing by light, will shortly be opened in Chicago by Dr. Wellington T. Stewart and Dr. H. J. Stewart, who have been in Copenhagen, Denmark, studying Dr. Finsen's discovery and methods.

The Garfield Memorial Hospital, Washington, D. C.—The District Commissioners have concluded transactions for the purchase of 67,000 square feet of the Schneider tract adjoining the grounds of the Garfield Memorial Hospital, the property to be used as an addition to the hospital grounds.

A Doctor his own Surgeon.—Dr. John F. Wilson, of Poughkeepsie, while examining a rifle five years ago, accidentally discharged a bullet which entered his head to the left of the nose. Dr. Wilson latterly felt a soreness of the throat and with the aid of a mirror discovered the cause in the protruding bullet, which he at once removed with a forceps.

A Health Officers' School.—An official notice is being sent out by the Indianapolis State Board of Health, stating that a health officers' school will be held in Indianapolis, on June 25th and 26, at the Medical College of Indiana, and all county and city health officers of county seats are summoned to attend. A similar school will be held for the town officers not herein mentioned, on December 17th and 18th, 1903. It is expected that Dr. Walter Wyman, surgeon-general of the Public Health and Marine Hospital Service; Dr. Arthur Reynolds, Health Commissioner of Chicago, and Mr. M. O. Leighton, United States hydrographer, will be members of the teaching corps.

The Medical Society of New Jersey held its one hundred and thirty-seventh annual meeting in Asbury Park, on Tuesday, Wednesday, and Thursday of this week, under the presidency of Dr. T. L. B. Godfrey, of Camden. After the reports of various officers and committees had been received, the president delivered the annual address, on The Educational Standards of the Medical Profession of New Jersey, Past and Present.

Reports on progress in various departments of medicine were made by Dr. J. L. Leal, of Paterson; Dr. R. B. Fitz Randolph, of Trenton; Dr. Charles Young, of Newark; Dr. Talbot R. Chambers, of Jersey City; Dr. W. H. Ireland, of Camden; Dr. J. M. Rector, of Jersey City, and Dr. B. A. Waddington, of Salem.

Papers were presented as follows: Serum Therapy in the Treatment of Tetanus, by Dr. B. C. Pennington, of Atlantic City; "Osteopathy," by Dr. R. C. Newton, of Montclair; The Organization and Operation of Hospitals and Other Charitable Institutions in the State of New Jersey, by Dr. Walter B. Johnson, of Paterson; An Operation for Complete Epispadias by Transplantation of the Urethra, by Dr. Frank V. Cantwell, of Trenton; Mosquitoes and Malaria, by Dr. J. J. Kinyoun, of Glenolden; Infantile Colic, by Dr. Alexander McAlister, of Camden; The Alexander Operation in the Treatment of Retrodisplacements of the Uterus, by Dr. Frank M. Donahue, of Trenton; Retrodisplacements and their Treatment, by Dr. J. M. Baldy, of Philadelphia; Some Practical Methods of Hydrotherapy for General Practice, by Dr. Eliot Gorton, of Fair Oaks, Summit; Some Diseases of the Eye Due to Nasal Infection, by Dr. S. Zeigler, of Philadelphia; Two Cases of Transient Complete Blindness of Both Eyes, by Dr. C. J. Kipp, of Newark; Acute Inflammation of the Accessory Sinuses of the Nose, by Dr. N. L. Wilson, of Elizabeth; A Clinical Contribution to the Knowledge of Tubular Disease of the Female Urinary Tract, by Dr. Edward J. Ill, of Newark; Pneumonia Simulating Appendicitis, by Dr. J. P. Crozer Griffith, of Philadelphia; The Advisability of Surgical Interference in Abdominal Contusions, by Dr. E. A. Y. Schellinger, of Camden; Unusual Malformation in the Female Generative Organs, by Dr. Emery Marvel, of Atlantic City; Court Testimony of Medical Experts in Mental Diseases, by Dr. B. D. Evans, of Morris Plains; Extensive Fracture of the Skull, by Dr. John C. McCoy, of Paterson; Exsection of the Scapula, by Dr. Edwin Field, of Red Bank; A Case of Amœba Coli Dysentery, by Dr. Philip Marvel, of Atlantic City; and A Case of Cæsarean Section for Pelvic Deformity, also The Relation of Medical Education to Preventive Medicine, by Dr. George H. Balleray, of Paterson.

Appropriate action was taken to so change the organization of the society as to conform to the new requirements of the American Medical Association. The annual dinner, followed by a reception and ball, was given on Wednesday evening.

Pith of Current Literature.

LANCET.

June 6, 1903.

1. The Perils and Complications of Fibroids After the Menopause. By J. BLAND SUTTON.
2. Mental Unsoundness Amounting to Certifiable Insanity, and its Diagnosis. By ROBERT JONES.
3. The Treatment of Gangrenous Herniæ by Enterectomy. By A. E. BARKER.
4. On the Relation Existing Between Uric Acid Excretion and the Breaking of White Corpuscles. By O. K. WILLIAMSON.
5. A Form of Removable Deep Suture. By F. R. S. MILTON.
6. A Case of Typhoid Pancreatitis. By B. G. R. MOYNIHAN.
7. Some Observations on Movable Kidney. By T. E. GORDON.
8. Appendicitis. with .Profuse .Intestinal .Hæmorrhage Closely Resembling Typhoid Fever. By C. R. BOX and C. S. WALLACE.
9. Soil Nitrification *v.* the Incidence of Malaria and other Mosquito-borne Diseases. By A. R. WADDELL.

1. **Postclimacteric Fibroids.** — Bland Sutton points out that though uterine fibroids, as a rule, cease to grow after the menopause, they are frequently sources of great peril to life, not only because they often coexist with other serious diseases of the uterus and ovaries, but because the very fact that they tend to diminish in size is a source of danger. The fibroid may be so big that its size prevents it from falling into the pelvis, but after the shrinking consequent upon the menopause, such a fibroid may fall into the true pelvis and become impacted. But the most frequent and the greatest danger connected with uterine fibroids after the menopause, is the occurrence of necrotic and septic changes. Such changes are probably due to (*a*) the marked diminution in their nutritive blood supply consequent upon the menopause; and (*b*) their attempted extension by the uterus. The fibroids which give rise to most trouble after the menopause are those of the submucous variety, and when the uterus passes into its resting stage and the fibroid is shrinking and dying, it attempts to get rid of them. The mouth of the uterus is widely dilated, and ready ingress is afforded to putrefactive organisms. .

When a woman with uterine fibroids has passed the menopause and begins to have irregular profuse uterine hæmorrhages, it is extremely probable that she has cancer of the body of the uterus.

2. **Mental Unsoundness.** — Jones concludes that when a case of mental unsoundness is presented to us, we have to consider the import of delusions, not only as to their content, but also as to their systematization, the question of psychical weakness in the abstract, abnormal irritability, defect or perversion of will power, and changes in the emotional states; confident that we are doing right by the patient in sequestrating him from managing himself or his affairs if he is suffering from the acute form of any variety of insanity, for all such persons are potential suicides; if he is suffering from confirmed systematized delusions of a persecutory character—for all such paranoiacs are potential homicides; if he is suffering from the early symptoms of general paralysis, or if there are great violence, noise, excitement, and sexual trouble; and that we are doing right in not certifying if the insanity is in a young person of either sex, is due to toxines, or is of a mild or subacute and temporary variety.

3. **Gangrenous Herniæ.**—Barker holds that the most imminent danger to the patient with a greatly damaged or actually gangrenous loop of intestine, lies in the condition of the bowel for the three or four feet above the constriction. If this is simply put back or an artificial anus made, the risks are enormous. In either case the evacuation of the damaged bowel will be slow, for the distended and sodden intestine is in a state of paralysis, often for days after the relief is given. In cases where the patient is in a reasonably good condition, the author thinks that to excise this dangerous portion of paralyzed or sodden or ulcerated gut *en bloc,* together with all its virulent contents, is relatively the safest course. At one sweep the three or four feet of gut with pints of toxic material can be cleanly removed. The great point is to remove at once the *contents* as well as the diseased bowel, and to make the suture junction in relatively sound and clean gut. The author reports four cases of gangrenous hernia treated by enterectomy with most satisfactory results.

4. **The Effect of Uric Acid Excretion on the White Corpuscles.**—Williamson has studied the output of uric acid and the quantitative and qualitative changes in the leucocytes in eleven cases of disease where there was leucocytosis (nine cases of pulmonary tuberculosis, one of lymphadenoma, and one of mediastinal tumor). In every case evidence of increased destruction of the white blood corpuscles was accompanied by a marked increase in the output of uric acid, thus confirming the observations of Horbaczewski, Kütman, and others.

6. **Typhoid Pancreatitis.**—Moynihan reports the case of a boy, aged thirteen years, who had had typhoid fever and was apparently recovering satisfactorily. During his convalescence, however, he began to have attacks of severe abdominal pain, accompanied by nausea and gradually deepening jaundice. A diagnosis of gall stones was made, and the abdomen opened. No gall stone or adhesions were found, but the head and body of the pancreas were twice as large as normal, and almost as hard as stone. The case is the first in which inflammation of the pancreas due to typhoid fever has been recognized.

7. **Movable Kidney.**—Gordon's conclusions are: (*a*) That in neurasthenic cases nephropexy may do good. (*b*) Vomiting and other gastric symptoms can certainly be cured, but if dilatation of the stomach is present, a guarded prognosis must be given. (*c*) One must be most cautious in concluding that a movable kidney is the cause of ob-

scure abdominal symptoms. (*d*) Movable kidney occasionally causes symptoms which exactly simulate those due to gall stones, but, seeing that the coincidence of movable kidney and gall stones is not uncommon, it would be unwise merely to fix the kidney without a preliminary examination of the gall bladder and ducts. Finally, while granting that many cases of movable kidney cause no symptoms and require no operation, there remain many which do cause symptoms, and in a fair proportion of these an excellent result from nephropexy may confidently be looked for.

8. **Appendicitis Resembling Typhoid.**—Box and Wallace report a case of appendicitis occurring in a man aged fifty-one years. The signs (pain, tenderness, etc.) all pointed to appendicitis, yet a free hæmorrhage occurred on the sixteenth and succeeding days of his illness. This, together with fever, nocturnal delirium and extreme prostration, led them to think that it was a case of typhoid fever. The patient died on the twenty-first day of illness. At the autopsy a large appendicular abscess was found in the right iliac fossa, the appendix having sloughed away. There was no typhoid ulceration of the bowel.

9. **Soil Nitrification and Malarial Disease.**—Waddell calls attention to the deadly poisonous effect which ammonia, even in very weak solution (1 to 4000), has upon mosquito larvæ. Ammonia is poisonous in all its combinations, the nitrogen unit being the index of effectiveness. Here we have a force of enormous potentiality against malaria, and one capable of practical application. It consists in the effective nitrification of the surface waters and vegetation through the medium of the soil, the former checking the existence of the larvæ, and the latter being inimical to the adult mosquitoes. Nitrification of the soil may be brought about in two ways—by the direct application of nitrogenous manures, and by fostering the growth of certain plants belonging to the leguminosæ, which are known by their peculiar root action to add to the nitrogen in the soil. Soil nitrification has this advantage over the majority of hygienic applications, it is *per se* directly profitable, the increased yield of produce more than compensating for a proper expenditure in carrying it out.

BRITISH MEDICAL JOURNAL.

June 6, 1903.

1. Remarks on the Red Light Treatment of Smallpox. By Niels R. Finsen.
2. Recent Electrotherapeutics, with Special Reference to Malignant Disease. By John Macintyre.
3. The X Rays in the Treatment of Lupus, Rodent Ulcer, and Other Skin Diseases. By Malcolm Morris and S. E. Dore.
4. Further Observations upon the Treatment of Rodent Ulcer by the X Rays. By J. H. Sequeira.
5. Treatment of Lupus by X Rays and Ultra-Violet Rays. By H. E. Gamlen.
6. Tuberculosis of the Conjunctiva Cured by X Rays. By Sydney Stephenson.
7. Further Work on Amœbic Dysentery in India. The Mode of Formation of Secondary Amœbic Abscess of the Liver, with a Note on the Serum Test for Dysenteries. By Leonard Rogers.

1. **Red Light Treatment of Smallpox.**—Finsen states that it may be considered an irrefutable fact that daylight, and especially the chemical rays, has a most injurious effect on the course of smallpox, as the suppuration of the vesicles is due to the effect of light. Consequently, it is possible to avoid the suppuration and its consequences by protecting the patients from the action of light. On the other hand, light seems to have no action on the smallpox infection itself, and death caused by the latter cannot be prevented by excluding the chemical rays; but the avoidance of suppuration is of the greatest importance, as the suppuration stage is most dangerous, and the greatest number of deaths are due to suppuration. Further, the numerous complications and sequelæ due to suppuration may be avoided, as well as the disfiguring pitting. Since smallpox is a disease in which the public health authorities oblige the patient to go into a particular hospital, he has a right to ask that he shall not there be unnecessarily exposed to dangers that may be fatal, or are at least liable to disfigure him for life. It must be considered absolutely unwarrantable on the part of the public health authorities to treat serious cases of smallpox, in which suppuration might be expected, in hospitals where patients are exposed to daylight. As to the private physician, it must be considered a gross shortcoming if, as soon as he diagnosticates smallpox, he does not make preparations to prevent the patient from being exposed to daylight. It is everywhere possible to darken the windows by curtains, and a candle will supply all the necessary light.

3, 4, and 5. **X Rays in Lupus, etc.**—Morris and Dore sum up their experience of the x ray treatment in the general statement that, while it has a well-defined sphere of usefulness, it is in the case of lupus vulgaris much inferior in curative efficacy to Finsen's light treatment. The use of the rays, however, supplies certain shortcomings of the light treatment, as they can be applied to cavities inaccessible to the latter. In dealing with lupus of mucous membranes the x rays are more effective. For the healing of ulcerated surfaces and for the relief of pain they are especially indicated. The combination of the two methods, reinforced, if need be, by the use of salicylic, pyrogallic, or carbolic acid, may be twisted to give good results in lupus, where the disease is not too extensive to be overtaken in its development by the therapeutic agencies. Positive statements cannot be made as to the permanency of these results, but there is good reason to believe that the disease may be kept under control, if the case is watched and treatment applied as soon as there is any appearance of recurrence. Practically the same may be said of rodent ulcer as of lupus, but here relapse after a varying period of time is the rule, and in some cases the most that can be done is to hold the disease in check.

Sequeira (4) does not advise the use of x rays in cases of rodent ulcer where the growth is very small, and where it can be completely removed without much deformity. In such cases complete excision with a fair margin of healthy skin affords a rapid and successful method of treatment. But where the disease is extensive, where entire removal is impracticable, or where the patient shrinks from operation, the x rays give most satisfactory results. Those cases in which there is the greatest destruction often do the best; large ulcers fill up, leaving only the hard rolled edge to treat. Cases in which the cartilage is involved are, as a rule, difficult to heal up completely. In nearly half the author's cases there have been slight recurrences. Small ulcers will heal after ten or twelve exposures; large cavities may require months. He applies the rays daily, or on alternate days, using tubes which spark at from four to six inches. Actual "burning" is not necessary.

Gamlen (5) thinks that the advantages of x rays over operative treatment in lupus, are principally cosmetic in effect. After healing they leave the skin soft and pliable. He reports twelve cases of lupus successfully treated by x rays. From his experience of these and many others, together with cases of cancer, rodent ulcer, lupus erythematosus, and various skin diseases, curative treatment is dependent upon the following points: The character of the coil; the voltage used; the condition of the tubes; the distance of the target from the patient; the duration and frequency of sittings, with the interval between each; and, finally, whether or not any other treatment is concurrently applied.

6. **X Rays in Tuberculous Conjunctivitis.**—Stephenson reports a case of tuberculosis of the conjunctiva, occurring in a girl aged four years, which was cured by the use of the x rays. The disease had lasted two months. The palpebral conjunctiva was bestrewn with miliary granulations and folds of cockscomb-like tissue. The submaxillary glands on the same side were enlarged. Tubercle bacilli were found in sections of the granulations, and inoculation into a rabbit's eye resulted positively. The affected conjunctiva was exposed to the x rays at a distance of six to ten inches from the focus tube, for an average period of ten minutes at each sitting. Nine such exposures were made in the course of a month, when the conjunctival malady was practically cured. The enlarged glands, however, became larger and were eventually removed.

7. **Amœbic Abscess of the Liver.**—Rogers's summary and conclusions are as follows: (*a*) Amœbic dysentery is most frequently found in patients dying from large tropical liver abscess, in the walls of which amœbæ can always be found, unless they have been opened for some time. The disease is chronic, and often latent, and not very often fatal by itself, but usually through complications. (*b*) Amœbic dysentery has naked-eye and microscopical characters which enable it to be easily distinguished from the more common bacillary type of the disease. (*c*) Its most important complications are large abscess of the liver, chronic or acute peritonitis, and postperitoneal abscess. (*d*) Amœbic abscess of the liver secondary to this form of dysentery may be produced (1) by infection across the peritonæum, with or without previous adhesions; or (2) through infection by the portal vein, producing sufficient clotting in its branches to cause a focal necrosis in one or more parts of the liver, concentric extension taking place by means of a similar process. (*e*) If staphylococci reach the liver with the amœbæ, as especially occurs when gangrenous sloughing of the bowel wall complicates amœbic dysentery, then multiple small abscesses in the interlobular branches of the portal vein containing both amœbæ and staphylococci result. (*f*) The bacillary form of dysentery is much commoner in Calcutta than the amœbic one, and is due to Shiga's bacillus, which is clumped by the blood of cases of ordinary dysentery, although not by that of the amœbic form, thus furnishing a means of differentiating between them clinically.

BOSTON MEDICAL AND SURGICAL JOURNAL.

June 11, 1903.

1. Dermatomyositis. By F. FORCHHEIMER.
2. Poliencephalomyelitis and Allied Conditions. By E. W. TAYLOR.
3. Congenital Inspiratory Stridor. By D. CROSBY GREENE.
4. Avulsion of the Tibial Tubercle Occurring in a Girl of Thirteen. By FRANCIS D. DONOHUE.

June 18, 1903.

5. The Need of an Institution for the Education of Nurses Independent of the Hospitals. By FRANCIS P. DENNY.
6. Hæmostasis by Compression and Heat. By JOHN W. KEEFE
7. Poliencephalomyelitis and Allied Conditions. By E. W. TAYLOR

[The abstract of the *Boston Medical and Surgical Journal* in our issue for June 20th was that of June 4th, not June 11th, as erroneously stated.]

1. **Dermatomyositis.**—Unverricht first called attention to this condition, as a clinical entity, in 1887. Since then a number of cases have been reported, some of which, however, have not been accepted as true cases of dermatomyositis by some authorities. The author reports one case of his own, which, he believes, fulfills all the diagnostic requirements as laid down by the most exacting authorities. The chief symptoms of the disease are: Urticaria-like or erysipeloid eruptions of the skin; sweats; local inflammatory œdemas; swollen and painful muscles; fever; enlarged spleen and a variety of other symptoms consecutive to the muscular swelling and tenderness.

3. **Congenital Inspiratory Stridor.** — Green says that the ætiology of this condition is not well understood. Although deformity of the epiglottis is not the cause of the stridor, yet such deformity is always present. The diagnosis of this affection is based on the following distinctive features: (1) Its appearance at birth; (2) the limitation of the sound to inspiration; (3) the absence of continuous cyanosis; (4) the constancy of the sound independent of the position of the child; (5) the laryngoscopic appearance of the epiglottis and ary-

epiglottic fold. The prognosis is good. The treatment is purely prophylactic. In very rare cases tracheotomy or intubation may be indicated.

5. **The Education of Nurses.**—Denny says that the defects of the present system for the teaching and training of hospital nurses are a natural consequence of the attempt to teach practice and theory simultaneously. The author advocates the establishment of independent schools at which undergraduate nurses can be systematically grounded in the principles of anatomy, physiology, hygiene, chemistry, pathology, and bacteriology. The practical training should come after this preliminary training, and it should be acquired, as at present, in the wards of general or special hospitals. The undergraduate nurses in our present training schools lack: (1) leisure for study; (2) instruction in the principles of nursing before beginning practical work; (3) instruction by those who are specially fitted to teach; (4) improved methods of instruction.

6. **Hæmostasis.**—The present paper completes the report of a series of fifty cases in which Keefe has used the electrothermic angeiotribe of Downes, instead of ligatures. The operations reported include fifty-five cœliotomies, one amputation of the thigh, and one of the leg, and two vaginal hysterectomies. The author is heartily in favor of this new method, for which he claims, among other advantages, the following: (1) The exclusion of ligatures and of the dangers consequent upon their use; (2) reduction in the danger of septic infection from the escape of contaminated material; (3) absence of painful and irritable stumps and decrease in the tendency to postoperative adhesions; (4) less postoperative pain. The present paper gives the histories of the author's last thirty-eight cases.

7. **Poliencephalomyelitis.**— (*Concluded from No. 24, page 638.* Taylor's main object is to call attention to the possible identity (chiefly of a pathologicoanatomical character) of a group of cerebrospinal affections. Their causation is as yet unknown, but a probable common exciting cause is toxic in character. The resulting lesions may, provisionally, be regarded as inflammatory in character. This group of cerebrospinal affections includes the following diseases: encephalitis, poliencephalitis (superior and inferior), poliencephalomyelitis, poliomyelitis, encephalomyelitis, and, with reservations, Landry's paralysis, and possibly myasthenia gravis and certain apparent peripheral nerve infections.

AMERICAN MEDICINE.

June 20, 1903.

1. Sudden Death and Unexpected Death in Early Life, with Especial Reference to the so-called Thymus Death. By J. P. Crozer Griffith.
2. The Toilet of the Peritonæum in Appendicitis. By G. R. Fowler.
3. The Anatomy of the Pancreas. By Eugene L. Opie.
4. Management of Malignant Disease of the Uterus. By George Erety Shoemaker.
5. A New Method of Treatment for Chronic Anterior Urethritis, and for the Declining Stage of Acute Urethritis. By William Warren Townsend.
6. Man's Responsibility in Sterile Marriages. By W. H. Prioleau.

1. **"Thymus Death."**—Griffith characterizes as sudden, a death occurring in from a few seconds up to a few hours at the utmost, while as unexpected he designates deaths taking place somewhat more slowly, and yet entirely unexpectedly, in patients who had previously shown no alarming symptoms. We cannot even enumerate the many causes of sudden and unexpected death considered by the author. We call attention only to those forms of death supposed to be due to spasm of the glottis and to the so called "thymus deaths": (1) Spasm of the glottis has appeared to be one of the most important causes of sudden death. Deaths from this cause certainly do occur, the direct cause of the spasm being great irritability of the nervous system. Possibly, however, a large number of the deaths that *seem* to be due to laryngospasm are in reality due to syncope. (2) Thymus death, so called, has been frequently reported, and much has been written both for and against the possibility of death from enlargement of the thymus. The author does not believe there is any clinical evidence to support the theory of hyperthymization of the blood or of some other form of autointoxication arising from a hyperplastic thymus. It seems possible that an enlarged thymus can, through pressure, produce death, but such an occurrence is certainly exceedingly rare. It has been *assumed,* in some cases, that the enlarged thymus was the cause of death simply because the gland was found to be hypertrophied. It is characteristic of truly sudden "thymus death" that the child has previously been in good health, or at least free from any alarming symptoms, and has then died quite suddenly, as though from laryngospasm or heart failure. With regard to the so called status lymphaticus and its relation to sudden death, this only can be said, that in a large proportion of cases, dying supposedly from laryngospasm, the thymus gland has been found enlarged. The enlargement is not, as a rule, great. If we apprehend the author's meaning clearly, his conclusions are, that while sudden deaths may at times be due to either laryngospasm or thymus enlargement, yet the majority of deaths attributed to either of these two causes are in reality due to cardiac syncope, neurotic in origin, which may or may not be associated with a lymphatic overgrowth.

2. **Peritoneal Toilet in Appendicitis.**—Fowler advances the following propositions, some of which are abridged: (1) In cases in which the infection is confined to the appendix the surrounding peritonæum should be carefully guarded from infection from the opening left in the cæcum by the excision of the organ. (2) In cases in which suppurative collections are present, the cavity of the peritonæum should be carefully guarded by gauze pads, which may be advantageously wetted in 1-2000 sublimate solution, before breaking down limiting adhesions in approaching the appendix. (3) As soon as a pus cavity is opened the septic

material should be rapidly sponged away and the neighborhood cleansed with hydrogen dioxide. Following this, the appendix should be removed, after which the parts are subject to a second cleansing process. (4) Outlying infection of the peritonæum may, as a rule, be left to take care of itself after the removal of the appendix and local cleansing. (5) In peritonitis, more or less generalized in the pelvic and enteronic areas, the method of procedure will depend on the presence or absence of markedly septic seropurulent material. (6) In diffuse septic peritonitis the conditions are usually such as to prohibit prolonged interference, and the surgeon will, in the majority of cases, be justified in interfering only to the extent of removing the appendix and cleansing locally. (7) Drainage when instituted, should be by glass or smooth rubber tubes.

MEDICAL NEWS.

June 20, 1903.

1. The Need of Public Toilets in American Cities. By Edward H. Williams.
2. The Morbid Anatomy and Pathology of Tabes. By Joseph Collins.
3. The Proper Recognition of Electrotherapeutics. By A. R. Rainear.
4. A Contribution to the Pathology and Prognosis of the Diseases of the Bladder. By Robert Holmes Greene and Harlow Brooks.
5. "Impressions of the Non-heredity of Acquired Characters." A Rejoinder. By Lawrence Irwell.

2. **Pathology of Tabes.**—The present paper is the last of a series of five communications on the subject of locomotor ataxia. Collins has based his study on a collection of one hundred and forty cases of tabes. Some of the articles are illustrated and the case histories have been adequately reported. The whole series of articles forms a notable contribution to the current literature of tabes.

3. **Electrotherapeutics.** — Rainear writes to urge the value of electricity as a therapeutic measure. He believes that if its possibilities were better understood it would be more frequently employed. Unless, however, electrotherapeutics is made a part of the regular medical course in our colleges, there is little immediate hope of its being intelligently applied, and hence becoming popular with the general practitioner.

4. **Pathology and Prognosis of Vesical Disease.**—Greene and Brooks append the following conclusions to their article: "(1) The most frequent causes of diseases of the bladder are: (*a*) lesions of the central nervous system, causing dilatation; (*b*) septic processes of various varieties; (*c*) hypertrophy of the prostate. (2) In all conditions in which the spinal cord or central nervous system is involved, frequent and early catheterizations should be resorted to, to prevent the bad effects of overdistention, or the possibility of cystic rupture. (3) Conditions of the bladder must greatly modify the prognosis of operative procedures for the relief of obstructions of the urinary flow; therefore the importance of cystoscopic and other examinations cannot be too strongly insisted upon. (4) Hypertrophy of the bladder wall is due to four different processes, separate or combined: (*a*) inflammatory infiltration; (*b*) increase of the fibrous connective tissue; (*c*) smooth muscle hyperplasia; (*d*) infiltration by new growth. The clinical symptoms in hypertrophy of the bladder depend on which of these factors predominate.

MEDICAL RECORD.

June 20, 1903.

1. Infantile Insanity in its Relations to Moral Perversion and Crime. By Allan McLane Hamilton.
2. Gastric and Intestinal Crises. By C. A. Ewald.
3. Intravenous Infusion in Puerperal Septicæmia. By Edward Waitzfelder.
4. The Correlation of Alcoholism, Crime, and Insanity. By C. A. Drew.
5. The Medical Officer of the United States Navy. By Gilbert Totten McMaster.

2. **Gastric and Intestinal Crises.** — Ewald draws his conclusions, chiefly, from a study of the 89 cases of gastric crises, due to disease of the central nervous system, that have come under his observation. In all the cases that have come under his observation he has been able to demonstrate, either singly or in greater number, the early symptoms of tabes. In the author's series, a history of syphilis was positive in 16 cases out of 26, was denied in 7 cases, and was doubtful in 3. Syphilis was therefore present in about 62 per cent. of these 26 cases. The disease lasted, on an average, two years and ten months. He has known it to last ten years, while the shortest duration in his experience was only two months. It is characteristic of the attacks that the interval between them gradually decreases. The course of each attack also varies in character. In the early stages, diagnosis will, for the most part, be a difficult matter. The greatest difficulty will arise in attempting to distinguish tabetic vomiting from so called paroxysmal or idiopathic vomiting. With regard to treatment, nothing very favorable can be said. It is well to emphasize the fact that no means are known of cutting short the attacks. In grave cases we must resort to morphine. In a number of cases the author has resorted to the epidural injection of cocaine hydrochloride. In no case has he noted disadvantageous after effects.

3. **Intravenous Infusion in Puerperal Septicæmia.**—Waitzfelder reports two cases in which the injection treatment was used. In both the streptococcus was demonstrated in the patient's blood. The injections were used repeatedly and were either 1-5000 formalin solution or plain normal salt solution. The quantity of fluid injected was either 750 or 1,000 cubic centimetres. The first patient died, the author believes, of pneumonia, and the second one recovered. In the majority of instances there was, within twelve hours, a marked fall of temperature following the intravenous injections, both of the normal salt and of the formalin solution. The temperature charts of both the cases are given. The author does not express, formally, his convic-

tions regarding the value of this method of treatment. He concludes his paper by calling attention to the fact that while a fall of temperature followed nearly every injection, the extreme falls in the temperature occurred after the normal salt solution injections.

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

April 21, 1903.

1. Comparative Investigations upon the Blood of the Mother and Child, and the Amniotic Fluid, with Remarks upon the Fœtal Secretion of Urine. By W. Zangemeister and T. Meissl.
2. The Treatment of Hæmatocele and Extrauterine Pregnancy. By F. Schenk.
3. The Sterilization of Small Dressings By K. Holzapfel.
4. The Heart and Apex Beat in Insufficiency of the Aortic Valves. By G. Galli.
5. Observations upon the Changes of the Blood in Extirpation of the Spleen. By E. Rautenberg.
6. Two Cases of Pernicious Anæmia. By K. V. Hösslin.
7. Ventilation. By K. Wolf.
8. Formulary for the Preparation of Mixtures of Various Concentrations. By Gossner.
9. Poisoning with Potassium Bichromate. By F. Berka.
10. A New Syringe for Injecting Paraffin.
11. The Danger of Infection with *Ankylostoma duodenale* in Mine Work. By Tenholts.
12. The Treatment of Tuberculosis of the Larynx. By E. Kronenberg.

1. **Comparative Examination of Maternal and Fœtal Blood and Liquor Amnii.** By W. Zangemeister and T. Meissl.—Abstracted in *New York Medical Journal* for June 6th, p. 1045.

2. **Hæmatocele and Extrauterine Pregnancy.**—Schenk, after a discussion of the different methods for treatment of hæmatocele in extrauterine pregnancy, reports the material of Saenger's clinic. There were 32 patients upon whom operations were performed; 26 were treated conservatively. The operations were performed 7 times for rupture of the pregnant tube; 25 times for a tubal abortion. In 18 cases the annexa of one side were removed; in 9 on both sides. In 4 cases total extirpation of the uterus was performed. All the operations were performed through the abdominal wall. One patient died after total extirpation, but she had a high fever when she was brought to the hospital, and the autopsy revealed fatty degeneration of the heart. The average period between the appearance of the clinical symptoms and the operation was five weeks. In 11 cases in which this period was exceeded it was necessary 4 times to remove both annexa, and 3 times the uterus. The indications for operations were in 14 cases persistent pain and uterine hæmorrhage; in 7 cases, pain alone, and in 4 cases hæmorrhage alone. In the other cases there were repeated attacks of collapse, and twice, increase of temperature. In 17 cases in which it was possible to determine the subsequent results the patients were able to work. In only once case is it known that subsequent conception with normal pregnancy occurred. Of the 26 patients that were treated expectantly 15 were subsequently examined, and 13 of these were entirely able to perform heavy work. Two still had occasional pains. Therefore the results of expectant treatment are practically the same as those of operative treatment.

3. **Sterilization of Small Dressings.**—Holzapfel describes an ingenious apparatus for sterilizing small quantities of dressings. It consists essentially of a steam generator with an alcohol lamp, and a small tube through which the steam is allowed to pass. Experiments have shown that there is very little loss of heat during the passage of the steam, and that exposure for fifteen minutes is usually sufficient for thorough sterilization.

4. **The Cardiac and Apex Beats in Aortic Insufficiency.** By G. Galli.—Abstracted in the *New York Medical Journal* for June 6th, p. 1039.

5. **Blood Changes after Splenectomy.** By E. Rautenberg.—Abstracted in the *New York Medical Journal* for June 6th, p. 1045.

6. **Pernicious Anæmia.**—Von Hösslin reports two cases of pernicious anæmia. In the first, a woman, aged fifty-six years, had suffered from loss of appetite for several years. There was an attack of jaundice and finally obstinate vomiting. An examination of the stomach showed complete absence of HCl., complete absence of digestion, and a small quantity of lactic acid. On a second occasion, three hours after the administration of a test meal, nothing was found in the stomach, but a small benign polyp was caught in the opening of the sound. The patient was discharged improved, returned with slight icterus, the blood had deteriorated considerably, the hæmoglobin being from 15 per cent. to 20 per cent., the red blood cells, 1,500,000. Later, she developed persistent diarrhœa, and there was obstinate vomiting. She recovered from this, but the blood was still worse. She had various attacks and finally died. An autopsy was performed, but aside from some dilatation of the stomach and a small benign polyp in its mucous membrane, nothing was found. The second case was also that of a woman, fifty years of age. There was pernicious anæmia, and from time to time attacks of unconsciousness. She frequently vomited, the vomitus never containing free HCl. The patient grew worse and finally died. There was a minute pneumonic focus in the left lung; otherwise merely the changes characteristic of progressive pernicious anæmia. Von Hösslin calls attention to the importance of careful gastric analysis in these cases.

7. **Ventilation.**—Wolf considers the most efficient method to be the old open fire-place. He mentions several forms of artificial ventilation, and calls attention to the errors in construction. For ordinary dwelling houses these artificial methods are unnecessary.

9. **Potassium Bichromate Poisoning.**—Berka reports the case of a girl, aged twenty-two years, who had had hysterical psychosis for many years, and had made fifteen attempts to commit suicide. She finally poisoned herself with from 20 to 25

grammes of potassium bichromate. About three or four hours after taking the drug she felt some pain, and two hours later she was brought to the hospital. There was a greenish mucus coming from the mouth, the pupils were dilated, the pulse was rapid, the respirations were more frequent, but there was no vomiting. The stomach was washed out and contained a greenish fluid. During the washing there was an involuntary evacuation of the bowels that was not particularly characteristic. Later, the patient began to vomit; there were persistent diarrhœa and extreme nervousness. She gradually grew weaker and finally died. There was a considerable amount of chromin in the bowel movement, the vomitus, and the liquid obtained by washing. At the autopsy the mucous membrane of the intestine was red. The salt was taken enclosed in figs, and this accounts for the absence of any change in the mucous membrane of the mouth.

10. **A Syringe for Paraffin Injections.**—Kantorowicz has constructed a syringe for hypodermic injection of paraffin, which consists essentially of one barrel enclosed within another, the outer barrel containing a salt which when melted, gives off heat during consolidation. This keeps the paraffin in the central portion of the liquid.

12. **Laryngeal Tuberculosis.**—Abstracted in *New York Medical Journal,* June 6th, p. 1042.

NEUROLOGISCHE CENTRALBLATT.

March 1, 1903.

1. The Acromial Reflex. By W. von Bechterew.
2. The Carpometacarpal Reflex. By W. von Bechterew.
3. Contributions to the Physiology of the Tendon Reflexes: A Preliminary Communication. By A. E. Stcherbak.
4. Incontinence of the Bladder and Paralytic Manifestations in the Extremities in Focal Softening in the Subcortical Ganglion. By A. Homburger.
5. Further Communications upon the Embryonal (Myelogenetic) Areas in the Human Cerebral Cortex. By P. Flechsig.

1. **The Acromial Reflex.**—Von Bechterew says that by percussion of the acromial portion of the scapula and the coracoid process there is produced a slight flexion of the forearm associated with a slight rotation of the hand inward, and in some cases, when the reflex is pronounced, a flexion of the fingers. This reflex is produced by contraction of the coracobrachialis and biceps, and when it is exaggerated, also by contraction of other muscles. It is probably periosteal in character, and is most pronounced in those conditions which cause general increase in reflex activity, as for example, hemiplegia, amyotrophic lateral sclerosis, etc. It is rarely increased in functional conditions.

2. **The Carpometacarpal Reflex.**—Von Bechterew says that if the hand of the patient is placed upon the hand of the observer, the back up, and the second and third phalanges of the fingers hanging freely down, and then a blow is struck with a percussion hammer upon the carpus or metacarpal bone, there is slight flexion of all the fingers excepting the thumb. This reflex occurs practically only in cases in which the reflex activity is enormously exaggerated. It is a true reflex, the centripetal portion of the arc commencing in the tendons of the back of the hand, passing through the first dorsal and lower cervical roots, and returning to the flexors of the phalanges of the fingers. It does not occur in functional conditions, and therefore is valuable for the purpose of differential diagnosis.

3. **Physiology of the Tendon Reflexes.**—Stcherbak records some very interesting experiments. By means of a tuning fork he applied rapid vibration to the hind leg of a rabbit, and found that in a short time it was possible to produce spasticity, so that there was increase in the knee jerk, knee clonus, and even clonus, when the opposite knee was tapped. If one of these animals was held in a rigid position for some time the spasticity reappeared. Rapid passive movements—1000 or 1500—also caused the spastic condition. If the spinal cord was cut in the dorsal region, local vibration caused a permanent unilateral increase in the knee reflex, but clonus did not occur. The loading of the animal with vibrations had no essential influence upon its general condition, or upon the muscle tone. If vibrations were applied to the spinal column, a spastic condition of all the muscles of the hind extremities occurred. These experiments apparently show that by means of vibration we can so influence the lower, or somatic, portion of the nervous system, that phenomena are presented that formerly were supposed to be due merely to changes in the higher, or psychical, portions of the nervous system, and that these phenomena leave traces which may for a long time remain latent.

4. **Focal Softening in the Subcortical Ganglion.**—Homburger describes some of the symptoms in ten cases in which numerous minute areas of softening were found in the corpus striatum and the thalamus. Micturition was of the automatic type, that is to say, in approximate periods, similar quantities of urine were discharged. Residual urine always remained. The act occurred suddenly and was beyond the control of the patient. At the same time there was usually slight power after voluntary micturition. There is spastic paraparesis of the legs in these cases, the movements of the knees are restricted; those of the feet free. The patient cannot get up when lying down; cannot sit upon a stool without support; can sit upon the floor, however, for a short time, after which he usually falls. The movements of the upper extremities are free, but there is lessening force, and lessening certainty. The tendon and periosteal reflexes are increased; ankle clonus is not present; there is imperative laughing and weeping, and occasionally hemichorea and hemiathetosis. He reaches the following conclusions regarding the significance of these lesions in the corpus striatum and thalamus. That unilateral areas of softening cause transient incontinence of urine; permanent increased desire for urination; bilateral areas of softening have persistent incontinence not essentially different from the spinal form. Therefore, the subcortical innervation of the bladder is bilateral. If the lesions are superficial they do not cause incontinence. The double-sided lesions

caused disturbance of station and paralyses which differed considerably from the picture of those that occur after lesions of the cortical fibres of the internal capsule.

5. The Embryonal Areas in the Human Cerebral Cortex.—Flechsig, as a result of his studies upon fifty-two series of sections of fœtal and infantile brains, is now able to determine the course of development of the medullary sheaths. At present he recognizes thirty-six cortical areas, and he believes that this opinion, although not certain, will not be changed greatly. He recognizes three areas in the parietal convolutions. He is not certain that fibres from the corona radialis enter the gyrus supra-angularis. The upper portion of the occipital convolution he now separates from the cuneus. There is reason to believe that the fibres to the uncinate gyrus develop above those to the central convolutions. This, however, is not conclusively proved. He believes that for every group of motor fibres there is a corresponding group of sensory fibres, and that the fissures of the surface of the brain bear a certain definite relation to these fields.

LYON MEDICAL

May 31, 1903.

1. Indications for Gastrointestinal Anastomosis; choice of operation. By M. Vallas.
2. Coexistence in the Digestive Tract of Two Primitive Cancers of the Same Histological Type (Cylindrical Epithelioma). By Devic and L. Gallavardin.

1. Gastrointestinal Anastomosis.—Vallas concludes this to be one of the happiest conquests of abdominal surgery. First advocated in France by Maisonneuve, it has been perfected in Germany by Wolfler and Von Hacker, and is now routine practice, the author being an enthusiastic advocate, owing to his 60 cases in the last four years, upon which he bases the following conclusions. The principal indication for gastroenterostomy is pyloric stenosis. In most cases, unhappily, a neoplasm is found, and therefore only a palliative operation is possible. However, the temporary results are excellent; the painful vomiting of great gastric dilatation ceases immediately, thirst is assauged, appetite returns, marasmus is arrested, and the patients enjoy a surprising gain in weight and a general euphoria. This intermission in the fatal course of cancerous cachexia varies, but twelve to fifteen months is the average; a striking case is a survival of over two years in one patient of the author's, a man aged seventy-six years.

If the pyloric stenosis is a simple cicatrix, the gastroenterostomy is naturally curative; but the author has found but four such cases in sixty. Gastroenteroanastomosis is allowable simply to rest the stomach; during the growth of ulcers; in insupportable pains of dyspepsia; in abundant or frequent hæmorrhage; the operation corresponds to cystotomy in giving physiological repose to a contractile organ. Twice the author has performed gastroenterostomy in perigastritis. In cases which showed incomplete stenosis, but in which there was considerable suffering, the stomach was found surrounded, as if in a net, by adhesions wide apart but spread over the entire surface of the organ. Such a condition might well be called a "symphysis of the stomach." The author's first case was supplied by Dr. Tournier, who diagnosticated perigastritis, and the adhesions were easily detached, with recurrence, however, in a month, when the operation of posterior gastroenteroanastomosis had to be performed, as it must be, so Vallas states, under all such circumstances.

As to contraindications, the author recognizes none. One of his first cases submitted by Professor Bard, had a profound cachexia with œdema of the lower limbs and ascites of the peritoneal cavity. This patient survived but one month, owing to the progress of the cachexia, but the vomiting disappeared, and anything is justifiable in the face of cancer. Relative benignity, moreover, is proved by statistics. Out of 60 cases, the author lost 12, none being rejected. There was never postoperative peritonitis. Death resulted from internal hæmorrhage (1), pneumonia (3), shock (3), and from the persistence of cachexia and marasmus. Where emaciation preexisted, there was no hope. A young man aged thirty-one years, who had weighed 85 kilogs. and at the time of operation weighed but 53, and a woman who had dropped from 56 to 30 kilogs., died the evening of the respective operations. Another woman aged forty-six, who weighed but 35 kilogs., gradually faded away and died within an month without stoppage of the progress of cachexia. Rapid, progressive emaciation, therefore, is an important item in prognosis.

Vallas thinks his mortality of 20 per cent. should be reduced. Eliminate those cases where cachexia or shock are likely to be factors. He considers this proved by the fact that in the 20 cases submitted to him, in 1902, by Josserand, Mouisset, Tournier, and P. Courmont, he lost but one, and that through pneumonia.

On the choice of operation, the author is brief. The surgeon may perform anterior gastroenteroanastomosis, posterior or transmesocolic, the "Y" operation of Roux, or the gastroduodenostomy of Villard. The last is the best as best reestablishing the gastroduodenal functions by passing the contents of the stomach into the duodenum above the ampulla of Vater, but unhappily it is generally impossible where the stenosis is cancerous. In cicatricial stenoses, the operation is ideal.

Next in order of merit is the "Y" operation of Roux, the author having performed it successfully four times, the first at Lyons, April 30, 1898. It is a long operation and, therefore, in feeble or cancerous cases, the author prefers the gastroenteroanastomosis or the transmesocolic of Hacker. In this last, there is no "vicious circle," no compression of the colon and no obstruction to the passage of the biliary and pancreatic fluids.

Wolfler's anterior gastroenterostomy should be used only as a last resort. The author used it once in a case where the posterior operation had already been performed with the result of producing a neoplastic growth of large extent on the mesocolon, causing a narrowing of the new pylorus. In another case, it was done because respiratory and cardiac syncope supervened immediately on manipulation of the mesocolic region. As to technics, the author prefers suture to the anastomotic button. He urges early operation in all such cases.

REVISTA CRITICA DI CLINICA MEDICA.

May 23, 1903.

1. A Small Amount of Uric Acid Eliminated in a Case of Leucæmia probably of Traumatic Origin. By S. BRUGNOLA (*Concluded*).
2. The Present Status of Electrodiagnosis. By CIARANFI.
3. On the Disturbances of Respiration. By L. SICILLIANO.

1. Uric Acid in Leucæmia.—Brugnola reports a case of leucæmia of the classical type which was probably due to a traumatism. The noteworthy feature of this case was that, contrary to the usual excess of uric acid found in these cases, there was a very small amount of this substance eliminated. The organism of the patient was therefore capable in this case of transforming the mother substances of uric acid. Another noteworthy fact in this particular case was the prevalence of multinuclear leucocytes in the blood of this patient, so that there was a leucæmia with multinuclear leucocytosis. It is possible that the scarcity of the uric acid eliminated was due to the fact that the leucocytes were predominantly multinuclear, as uninuclear leucocytosis is usually allied with the classical excess of uric acid in the urine of leucæmics. One case, however, is not sufficient to prove this theory, and further observations are needed.

RIFORMA MEDICA.

May 13, 1903.

1. Abscess of the Spleen. By ANGELLO CIPOLLINO.
2. On the Diagnosis of an Abdominal Tumor. By G. ZAGARI. (*Continued.*)
3. On Hyperchloruria in Pneumonias and on the Presence of Organic Chlorine in the Tissues. By A. SANTINI.
4. A Gunshot Wound of the Abdomen. By E. BARDELLINI.

1. Abscess of the Spleen.—Cipollino reports the history of a case of splenic abscess in a man aged twenty-two years. This condition is rare, and but few cases are on record. In almost all instances the abscess is secondary. The splenic arteries, being, as is well known, terminal, there is a liability to infarcts and necrosis of circumscribed areas of the organ. The case here reported is of special interest because it shows that splenic abscess may sometimes be of tuberculous origin, for tuberculosis was produced in animals by the injection of pus from the spleen of the patient. The *Bacillus coli* was, however, found on examination in this pus. The most important general symptom of splenic abscess is fever. This may be continuous or remittent, but in most cases it is typical of pyæmia. A pyæmic fever which develops during convalescence from an infectious disease, and which is accompanied by other symptoms of local character points to suppurative process somewhere in the body. The other general symptoms are allied to the fever, and consist in the typhoid state, weak and rapid pulse, etc. The local signs consist of tumor in the splenic region and pain. The tumor is only diagnostic when it is of considerable size, and when fluctuation is to be detected in it, otherwise it cannot be distinguished from an enlarged spleen. The pain varies in intensity and may not appear until late, when the abscess is large. The characteristic position of the patient is upon the back, with the trunk flexed laterally.

3. Chlorides in Pneumonia.—Santini draws the following conclusions, as the result of his investigations on the subject of the chlorides of the urine in pneumonia and the organic chlorine of the tissues. The quotient of the alkaline mineral chlorides remains invariably or almost constant in the tissues of a patient with pneumonia, as well as in a healthy individual, or it is slightly diminished. During the infectious process the amount of chlorides not eliminated by the organism enters into combination with the organic substances which are abnormally produced during the disease, and which are impermeable to the kidneys. During physiological conditions there is also a constant and definite portion of the chlorides which remains in the tissues as alkaline mineral combinations, while another portion of the chlorine is in combination with organic substances.

4. Gunshot Wound of Abdomen.—Bardellini concludes from a study of a case of gunshot wound of the abdomen that, even when there are no signs of perforation or other visceral lesions of grave character, the patient's life may be in immediate danger, and that in cases of gunshot wounds of the abdomen it is not wise to wait till such signs develop, but it is imperative to operate at once, and to seek to ascertain all the damage done by the bullet. In the case cited, the patient was in good condition and did not show any signs of perforation when admitted, but owing to the nature and localization of the wound (in the mesogastrium, to the left of the umbilicus) there was no doubt as to the fact that the wound had penetrated through the intestines. On laparotomy, six perforations were found and closed. A portion of the intestine had to be resected and a Murphy button was used to unite the ends. The patient made a good recovery.

REVISTA MEDICA CUBANA.

June 1, 1903.

1. A Case of Amyotrophic Lateral Sclerosis of Long Duration. By J. A. VALDES ANCIANO.
2. A Case of Double Gastric Ulcer. By G. COCCHI and L. CUERVO.

1. Amyotrophic Lateral Sclerosis.—Valdes Anciano reports a case presenting some unusual features: For example, entire absence of bulbar symptoms, notwithstanding the ten years' duration of the disease; the commencement of the symptoms of sclerosis in the lower limbs rather than in the upper, as is the general rule; and, finally, the long duration and slow evolution of the disease as compared with its usual, rapid (two to five years') course.

2. **Double Gastric Ulcer.**—Cocchi and Cuervo describe the case of a man, giving a history of previous malarial attacks, who came under hospital treatment for gastric ulcer. But little could be done for his relief, and death from perforation of the ulcer and consequent peritonitis followed shortly after his admission. Autopsy revealed a second, healed ulcer in the stomach, from the existence of which and the development of the ulcer which caused the patient's death, the authors believe a practical lesson is to be drawn. In view of the fact that gastric ulcer occurs most frequently in the anæmic, and that malaria is a fruitful source of impoverishment of the blood, they hold that the patient should not be considered cured when quinine has done its work in breaking up the malarial seizures; but that a vigorous tonic treatment should follow, in order that the patient may be guarded against its after effects. In the case reported, gastric ulcer is believed to be a late manifestation of the former paludal state, which might have been obviated by appropriate postmalarial treatment.

JOURNAL AKOUSCHERSTVA I GIENSKIKH BOLIESNEY

January, 1903.

1. Gynæcology Among the Other Medical Sciences. By Professor V. N. Massen.
2. On the Treatment of Narrow Pelves. By N. I. Priedinsky.
3. The Diagnosis of Gonorrhœa in Women. By G. A. Greiffe.
4. A Case of Cancer of the Ovary in a Girl Aged Fourteen Years. By D. P. Kouznetsky.
6. On the Technics of Laparotomies. By P. T. Sadovsky.
7. The History of Puerperal Sepsis. By P. G Bondarieff.

4. **Early Ovarian Cancer.**—Kouznetsky reports a rare case of carcinoma of the ovary in a girl who had barely reached puberty. Gussenbauer and Olshausen each have observed similar cases in girls of about eight years of age, and Brown has reported an instance of carcinoma of the ovary in a girl aged nine months. The usual age for this disease is between thirty and fifty years, according to Pfannenstiel. The scirrhous form occurs in old age, but the other forms, especially the medullary, are seen in women during menstrual life or at the climacteric, and grow very rapidly. The diagnosis of a primary carcinoma of the ovary in a young girl is, according to the author, absolutely impossible, although the rapidity of the growth may give a hint as to its malignancy. The treatment is, of course, solely operative, but the prognosis is not so bad as might be supposed, for in three cases on record there was no recurrence in from seven to eight years, and in another case over eight years elapsed without recurrence. Papillary carcinomata of the ovary give the worst record for relapses. In the present instance the patient was a girl, aged fourteen years, who entered complaining of a swelling in the abdomen which had grown larger during the preceding six months. She noticed the "lump" accidentally, but afterward shooting pains developed in it, which recurred in paroxysms. She had never menstruated. The tumor was of the size of one fist and a half, very movable, and situated at the lower part of the abdomen. It was found to involve the right ovary, and was removed, the pedicle being tied with reindeer tendon. The left ovary was found enlarged to the size of a walnut and nodular, and was therefore also removed. On microscopical examination, a medullary carcinoma of both ovaries was found. The patient made a good recovery.

6. **The Technics of Laparotomy.**—Sadovsky says that the majority of gynæcologists in removing the uterus or annexa ligate the stumps *en masse* by means of stout ligatures passed with blunt needles. In the after-treatment, there are many cases which show a painful thickened stump on palpation or a stump that gives rise to constant and distressing pain, which compels the patient to ask for another operation if needed, to relieve the patient of the painful conditions. This pain in the stumps may be explained by the presence of inflammatory changes in the ligated structures or by the formation of dense adhesions in the surrounding peritonæum. In three cases in which the author has had occasion to perform secondary laparotomies for painful stumps, he has found these structures very much thickened and surrounded by dense adhesions. In one case the stump after an ovariotomy was found adherent to a loop of small intestine, and the remains of a silk ligature were found on separating the loops. In the other cases no traces of the ligatures could be found, the ligatures having been evidently absorbed completely. The author thinks that the trouble lies with the method of ligature employed, and that the structures of the stump should be tied separately, and the peritoneal stump closed by suture afterward. This method takes more time, but that does not matter under present aseptic conditions when we know how to protect the peritonæum by means of sponges. The author applied one or two hysterectomy clamps to the stumps, then dissected the structures, caught the ovarian vessels with artery clamps, and took off the hysterectomy clamps. The remaining bleeding points were then caught with artery forceps. All the vessels were now ligated with catgut and the clamps and forceps removed. The peritoneal stump was closed with continuous or interrupted catgut sutures. In removing the tubes the same method was pursued, the tubes being caught in separate clamps and tied separately. The advantages of this method are that the peritoneal cavity contains only a continuous suture instead of thick ligatures; that the stumps do not project into the peritoneal cavity, and present a smooth surface everywhere covered by the peritonæum; and that the formation of adhesions, especially to the small intestines, is avoided.

ROUSSKY VRATCH.

Saturday, April 26, 1903.

1. The Röntgen Rays and Other Methods of Early Diagnosis in Pulmonary Tuberculosis, By D. I. Vieruzhsky.
2. The Sensation of Rhythmical Vibrations at the Periphery of the Body; significance in Diagnosis. By F. I. Ivanoff.

3. The Action of Copper Citrate in Some Diseases of the Eye. By A. G. Krotoff.
4. On So-called Surgical Scarlatina. By V. P. Gerasimovitch.
5. Essentucki. The Season of 1902. Report of the Physicians in Charge of the Health Reports Constituting this Group. By V. A. Stange, V. F. Orlofsky, and V. V. Homolitzky; with a description of the Zander Institute by Dr. S. I. Einhorn.

1. **Röntgen Rays in Pulmonary Tuberculosis.**—Vieruzhsky, physician to the Nikolas Military Hospital, St. Petersburg, where Russian soldiers affected with tuberculosis are regularly sent, reports the results of a long series of observations in various methods of diagnosticating tuberculosis. Speaking of tuberculin as a diagnostic test, he concludes that it has proved disappointing and states that it has been abandoned at the Nikolas Hospital on account of the dangers connected with its use. He does not, however, present a detailed report on this subject, but refers to previous publications by two of his colleagues (Bertenson, in 1891, and Tchigaieff, in 1897). The author is enthusiastic concerning the merits of Röntgen rays in the diagnosis of early stages of consumption. Measurement of the respiratory capacity of the lungs by means of the spirometer, which has been recommended as a method of diagnosis in tuberculosis, has not given him satisfactory results, the figures obtained being uncertain and variable. The use of the Potain sphygmomanometer to determine the blood pressure of tuberculous patients did not give definite information, as blood pressure varies within wide limits in early stages of the disease. The Ehrlich diazo-reaction was obtained in some cases, but was not present constantly, and could not be used as a diagnostic aid. As regards the Röntgen rays, the author realizes the deficiencies and limitations of this means of diagnosis, but says that very frequently skiagraphy offers a means of controlling and confirming the data of physical examination. As such, it is of great value in the early diagnosis of tuberculous lesions. The presence of consolidation at the apices of the lungs, or elsewhere was evident on x ray examination, and the presence of fluid in the pleura could always be made out.

3. **Copper Citrate in Eye Diseases.**—Krotoff has used copper citrate in 109 cases of eye disease, and presents the results of his investigations. Copper citrate was discovered in 1832, by Gay-Lussac, and occurs as a green powder devoid of odor or taste, soluble in water in the proportion of one part in 9143, and in salt solution in the proportion of 1-7700. It contains 35.69 per cent. of copper. In order to determine the bactericidal properties of this substance, the author experimented with various germs, and found that a solution of 1-9143 killed the *Staphylococcus pyogenes* in from three to six and a half hours; the *Bacillus pyocyaneus* in seven hours, etc. Ointments containing copper citrate in use for a month were found sterile. The remedy was used in the following forms: (1) A 5 or 10 per cent. powder with sugar. (2) A 5 to 20 per cent. ointment with vaseline, lanolin, or glycerin, according to Arlt's formula (copper citrate 5-20, and glycerin ointment enough to make 100). (3) In the form of pencils, containing from 10 to 20 per cent. of the active substance in gum Arabic, starch, dextrin, sugar, distilled water, and glycerin to make a mass. (4) In the form of washes, in water, 1-9143. The author has employed this remedy in fresh trachoma, in pannus tenuis, in pannus crassus, in corneal opacities, and in chronic conjunctivitis. He obtained good results in 62.5 per cent, 35.2 per cent. of the cases giving no results, while in 2.02 per cent. the disease became worse. In 12 cases of fresh trachoma [the word *fresh* meaning trachoma in the earlier stages] 3 were without result, and one got worse after the use of copper citrate pencils. The best and most satisfactory results were obtained in pannus tenuis, in which ointments of from 5 to 20 per cent. of copper citrate in glycerin caused disappearance of the pannus in from one to three days. Photophobia, lacrymation and discharge from the conjunctiva diminish very rapidly under this treatment. In pannus crassus also it proved of great value, but not in those cases complicated with xerosis. Trichiasis also interfered with its action, and the lids had to be epilated. In corneal opacities the pencils proved of considerable value, especially in the earlier stages. In fresh trachomata the pencils secured a diminution and even a disappearance of the granulations. In only 12.36 per cent. of all the cases did application of the ointment produce acute exacerbation of the disease, especially in pannus, but this was temporary and was followed by relief. The author concludes that copper citrate is a very valuable remedy in ophthalmic practice. In the rapidity of its effect upon pannus and corneal opacities, it surpasses all other remedies of its class.

AMERICAN JOURNAL OF OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

May, 1903.

1. A Method of Determining the Internal Dimensions, Configuration, and Inclination of the Female Pelvis, By Hugo Ehrenfert.
2. The Rational Treatment of Puerperal Infection, By H. G. Wetherill.
3. The Treatment of Gonorrhœa of the Uterus, By George W. Newton.
4. The Surgical Treatment of Uterine Fibroma, By Brooks H. Wells.

1. **Measurement of the Female Pelvis.**—Ehrenfert briefly narrates the history of internal pelvimetry and mentions the instruments of Van Huevel, Skutsch, and Hirst as best adapted to the purpose, all being based upon the principles suggested by Willenbergh.

He proposes a method based upon a new principle which appears (if we understand him correctly) to be similar to that which is involved in the axis traction forceps.

In conjunction with Dr. J. Neumann, of Vienna, he has devised for the purpose two instruments, the pelvigraph and the kliseometer.

The pelvigraph consists of a cylindrical rod, hollow at the end contiguous to the patient, with a graduated disc, marker, and spirit level at the end contiguous to the operator. This is for registration purposes. Into the hollow end is attached a rod called an exploring arm, for introduction into the vagina. This arm is made in five different shapes or curves, each being of the same length in a line from the point to the attachment, and each being intended to reach a different portion of the pelvis. By applying the five different arms in succession, moving each until the spirit level is horizontal, the marker will register on a suitable piece of paper five points, which, when joined, will furnish a graphic expression of a vertical mesial plane of the interior of the pelvis.

The kilseometer, for determining the inclination of the pelvis, consists of a metallic arch or bow with a knob at one end and a cylinder carrier at the other. A rod which slides through the carrier always moves upon an axis running through the centre of the carrier and the knob. The inner end of the sliding rod is a knob, while a disc provided with a thumbscrew and a spirit level is at the outer end.

The angle of inclination is obtained by turning the disc until the spirit level is horizontal, a pointer on the disc indicating on the scale the angle of inclination.

These instruments were shown to the Chicago Gynæcological Society at its meeting, February 19, 1903, and were discussed by the society. The discussion is in the May number of the *American Journal of Obstetrics,* from which this article has been prepared.

2. **Puerperal Infection.**—Wetherill laments the discrepancy between the present day teachings in regard to puerperal infection and the results in practice. To be sure the results in the first class maternity hospitals are all that could be desired, but the same is not true in private practice, whether among the poor or the rich. He believes that rational preventive and curative measures are possible even under most unfavorable conditions, and he desires to make a plea for the application of surgical methods, and to urge that they be universally applied in every-day obstetric practice.

He refers the most frequent and serious infection to streptococcus invasion, the source being usually the hands or the instruments of the accoucheur; less frequently the patient or her environment. Infection is possible without fault on the part of the accoucheur when disease of the vagina, uterus, tubes, or ovaries has existed, and it is also possible when one is called so suddenly and at so advanced a period of labor that there is not time for carrying out the necessary details of asepsis.

He believes that hospital treatment for those who are unable to provide suitable surroundings for the parturient woman should be heartily encouraged. He makes two suggestions in regard to prophylaxis: the fewest possible vaginal examinations; and the systematic use of rubber gloves. External palpation is usually sufficient for an experienced obstetrician, without any vaginal examination whatever. The rubber gloves have everything in their favor, and their routine use will reduce both morbidity and mortality. The limitations as to the usefulness of the curette and the uterine douche are throngly insisted upon. The abuse of the curette is properly termed monstrous. The use of the anæsthetic for the curetting is in itself often an element of grave danger for the septic puerpera. The uterine douche, unless cautiously and judiciously used, may do great harm.

The antistreptococcic serum and the unguentum Credé are believed to be ineffective and the former is often harmful. Laxatives and purgatives given injudiciously may also deplete and weaken when the indications are to stimulate and support. The instillation of normal saline solution into the depleted veins may be life-saving. Other helpful drugs are whiskey, strychnine, caffeine, sparteine, quinine, digitalis, and adrenalin chloride. Intrauterine irrigations of alcohol, as advocated by Carossa, in 1896, and drainage by means of suitable tubes are recommended; also irrigation of the stomach if nausea is present. As to surgical procedures in general in the presence of puerperal sepsis, the rule is given by the author that one should never operate during the acute stage, except as a last resort, and then always with the worst possible prognosis.

3. **Gonorrhœa of the Uterus.**—Newton says that the treatment of gonorrhœa of the uterus varies with the location and duration of the disease. If the disease is limited to the cervical canal, the discharge should first be removed with a suitable brush, after which a mixture containing 40 per cent. of carbolic acid and 60 per cent. of tincture of iodine is carefully applied on a cotton-wrapped applicator. If the os is eroded, a vaginal tampon moistened with a 1 per cent. creolin solution should then be inserted. These applications are to be made once or twice a week and vaginal douches with a weak solution of creolin should be used daily.

If the disease has passed the os internum and is subacute, the patient should be kept in bed, and for treatment the uterine canal should be dilated, irrigated with four ounces of a 2 per cent. solution of protargol, then lightly packed with gauze moistened with 2 per cent. protargol. The gauze should be removed in twenty-four hours, and the uterus again irrigated with the protargol solution. This should be repeated daily for a week or ten days.

If the disease is chronic the same treatment should be used; and, in addition, the uterus should be curetted after the dilatation.

If salpingitis is already present no local treatment of the uterus can be expected to produce a cure.

4. **Uterine Fibromata.**—Wells says that the surgical treatment of uterine fibromas may be palliative or radical, the former being accomplished by curetting as frequently as the situation may require; the latter by the vaginal or abdominal removal of the tumor, and the uterus, also, if necessary. The vaginal operation is indicated if the tumor is in the cervical region. If the tubes are diseased, uterus and tumor, with the diseased appendages should all be removed. An abdominal incision may be required to complete the operation. If the tumor is more than three inches and a half in diameter the abdominal operation is to be preferred.

The ideal abdominal operation is myomectomy, but this is not always feasible. Hysterectomy is always a formidable operation and should not be performed by those who are inexperienced and who are not prepared to meet the complications which may arise.

The patient should be carefully prepared and placed in the Trendelenburg position. The abdominal incision should be a long one, and care must be taken to avoid injury to the bladder. Adhesions must be separated with great caution. The tumor, when freed, should be lifted out of the abdominal cavity. The abdominal contents should be protected with gauze pads. The ovarian arteries and veins are then tied, then the round ligaments. The uterine vessels are then compressed with clamps. The bladder is next dissected away, and the uterine arteries exposed and ligated. The cervix is then divided, and tumor and uterus removed. All bleeding points having been secured the peritoneal edges are united and the abdominal wound closed. If the cervix is to be removed, the arteries having been tied or clamped, the uterus is drawn away from the vagina and the dissection carried down to the cervicovaginal junction, the scissors being then pushed through the tissues and into the vagina. Section around the cervicovaginal junction is then completed, gauze is inserted through the wound into the vagina, and the peritoneal and abdominal wounds closed. The gauze is removed gradually through the vagina during the following six days.

After the operation a rectal enema of a pint of saline solution is given, and this is repeated every three to six hours as occasion may require. Small quantities of hot water with a few drops of lemon juice may be given after six or eight hours, at short intervals. Should there be nausea, an abundance of hot water may be given which can be vomited and the stomach thus be relieved. A high enema of a quart of hot water with an ounce of alum may be given should the bowels become distended. Strychnine in suitable doses may be injected if indicated. After the bowels have been moved the patient may lie on the back or side as she chooses, and the food may be cautiously increased. The urine may be drawn by catheter if there is difficulty in passing it naturally. Injuries to the bladder, ureters, and intestines are possible. The principal causes of death are hæmorrhage and sepsis.

THE EDINBURGH MEDICAL JOURNAL.

April, 1903. (Vol. XIII, No. 4.)

1. On Streptococcus Infection of the Lungs. By DAVID LAWSON.
2. Retinal Hæmorrhages as a Diagnostic Feature in Fracture of the Base of the Skull and in Subarachnoid Hæmorrhage. By R. A. FLEMING.
3. The Treatment of Psoriasis. By W. T. FREEMAN.
4. On Hand Disinfection. By ROBERT PURVES.
5. Ascites in Early Alcoholic Cirrhosis of the Liver. By F. PARKES WEBER.
6. The Nervous Affections of the Heart. By G. A. GIBSON.

1. **Streptococcus Infection of Lungs.**—Lawson reports a case of pure streptococcus infection of the lungs and pleura and comments upon the following points: (1) The low diet treatment in this case at least failed to reduce temperature or to improve the general condition of the patient. (2) No tubercle bacilli were found in the sputum, although the physical signs at the apex of the left lung were pronounced. (3) The exocardial murmur was due to compression of the air contained in the pulmonary cavity by the cardiac systole and not to any purely cardiac factor. (4) The author found inspections of the cavity in the apex of the left lung through the upper wound by laryngoscopic mirror and small electric hand-lamp quite practicable. (5) In regard to the physical sign it was noticed œdema of the chest wall was clearly demonstrated by pressure of the stethoscope over its lower one third behind. The breathing signs over this region never became entirely occluded. They were faintly heard and gave an impression of distance.

2. **Retinal Hæmorrhage in Diagnosis of Skull Traumatisms.**—Fleming reports a number of cases of fracture of the skull and from them concludes that subarachnoid hæmorrhage, if sufficiently rapid in its development, will cause retinal hæmorrhage, and that if the effusion is unilateral the hæmorrhage will be confined mostly to the affected side. It may be supposed that the sudden increase of pressure in the subarachnoid space may, if unilateral, tend to pass up the intersheath space of the same side, while the opposite intersheath may be occluded by the distorting force, which must be associated with the production of flattening.

3. **Psoriasis.**—Freeman's treatment for psoriasis is: The acute condition is benefited by salicin, or by the salicylates more than by any other drug. If itching appears the administration of full doses of nux vomica with the salicin is advised. Salicin may be given in doses of sixty grains. When there is much neurosis, combine the treatment with bromides. *Do not use the more powerful remedies.* Absolute rest in bed should be required. Alkaline warm baths are advantageous, but in the oily type of a case, sulphur is to be substituted for or combined with alkali. For external application chrysartobin is the best to employ. Avoid its use about the neck, and do not use it anywhere in an inflammatory type of the disease. Its strength should be regulated and the drug should be used twice a day. If the traumaticin is used, it may be left on for three or four days and some keratolytic agent should be previously used. Thyreoid extract is advised but should not be used in old people. Arsenic internally is useful in some cases.

MISCELLANEOUS.

Some Points in the Prognosis and Treatment of Puerperal Eclampsia. Dr. W. E. Fothergill (*The Medical Chronicle,* March, 1903) points out that in cases of threatened eclampsia the prognosis practically depends upon the results of prophylactic treatment. Apart from this, a point worthy of note is the frequent absence of œdema in serious cases. In attempting to forecast the end of a case of actual eclampsia, it is not wise to attach too much importance to the number or severity of the fits. The irritability of the nervous system determines to a large extent the number and the severity of the symptoms. The use of morphine and other sedatives may so check convulsions and increase coma that neither of these features can be relied on in forming an opinion as to the gravity of the case. The author does not put too much reliance in the generally accepted statement that the mildest cases are those in which convulsions begin after labor is over. The most favorable cases are doubtless those in which fits occur actually during labor and are initiated by some definite external stimulus, such as obstetric manipulations. The quantity of albumin in the urine is, according to the author, a false guide, and he asserts that the reduction in the quantity of urea excreted forms a much more reliable criterion.

When there are symptoms and physical signs of toxæmia during pregnancy, active treatment should never be omitted. Rest in bed, copious drinks of water, milk diet, purgatives (especially calomel and magnesium sulphate), rectal lavage, hot baths, hot wet packs, are all useful. The use of thyreoid substance for increasing metabolism and promoting diuresis appears well worthy of an extended trial. When there are no symptoms there may still be albumin in the urine. Although there is no albumin, the daily output of urea may be seriously lessened. The medical attendant should examine the urine periodically during pregnancy, and if the output of urea is low, he should take simple measures to increase it. If these fail, his treatment must become more active. Should albumin appear his care must be redoubled, and should the patient still fail to respond to treatment, it becomes a duty to terminate the pregnancy whether the child is viable or not. The simplest way of viewing the treatment of actual eclampsia is to regard it as an extension of the treatment of threatened eclampsia. Morphine to reduce the irritability of the nervous system, or with the further intention of relaxing arterial spasm, is of use. Rectal lavage and the hot wet pack can be used before or after the attack. Large doses of calomel and Epsom salts can be given as soon as the patient can swallow. *Accouchment forcé* is coming to be regarded as removing the cause in the wrong way, and at the wrong time. On the other hand, slow induction of labor before any attack has occurred or after one attack has been tided over, is daily becoming more popular. Obstetrical treatment should be merely secondary to medical treatment during actual eclampsia. If labor begins before or during the attack, it should be conducted with the same care and patience as if the patient were in health.

Ætiology of Epidemic Dysentery.—M. Vaillard and M. Dopter (*Presse médicale,* May 16th) conclude that in France in all epidemic dysenteries, a bacillus identical with that of Shiga is always found. It is agglutinated exclusively by the serum of patients affected with mucosanguinolent dysentery, while the serum of patients with so called tropical dysentery does not cause agglutination. By inoculation of the bacillus or of its toxines into animals, these are affected with symptoms characteristic of epidemic dysentery. The authors say that the bacillus discovered and described by Chantemesse and Widal in 1888, differing from that of Shiga, should be considered the exciting cause of epidemic dysentery in moderate as well as in tropical countries. The blood of animals immunized against this bacillus possesses certain prophylactic qualities, and it should be tried as a curative agent in the disease.

The Treatment of Purulent Conjunctivitis. By Edgar S. Thomson, M. D. (*Medical Record,* May 30th).—The first thing to do is to determine the nature of the infection, either by a cover slip preparation, or by a culture. The importance of this lies chiefly in the fact that gonorrhœal conjunctivitis demands a much more heroic line of treatment than does a conjunctivitis due to one or other of the numerous pus germs. The author divides practically all purulent forms of conjunctivitis into gonorrhœal and non-gonorrhœal. The treatment recommended we summarize as follows: (1) General treatment applicable to all cases. (*a*) Cleanliness. This is imperative and is best accomplished by cleaning the eyes with boric acid solutions. The cleaning should be carried out every ten minutes night and day if necessary. (*b*) Control of the inflammation. For this iced cloths are the best. They keep down the swelling and to a certain extent inhibit the growth of the infecting microorganisms. (*c*) Treatment of complications. Protargol and argyrol are the most generally useful drugs for the treatment of corneal complication. Chemosis, when severe and when the discharge is not free, can often be treated with advantage by scarification. Corneal ulcers, under suitable conditions, are best treated by cauterization with pure carbolic acid. After the cornea has become infected hot water applications should be used. (2) The treatment of gonorrhœal conjunctivitis. Nothing can compare in efficiency with solutions of silver nitrate. It should be applied as soon as the diagnosis is made. In adults, if the case is seen in the first few hours after the infection has occurred and before there is much swelling, a two per cent. solution, applied thoroughly with a cotton swab on an applicator to all parts of the conjunctiva, will be sufficient. The reaction which invariably follows can be controlled with iced cloths. If the case is seen later, about the second day, when the discharge and swelling are about at their height, then it is often well to try and abort the attack by applying solutions as strong as three or four per cent. If this is done the applications should always be neutralized with salt solution. When the disease is well developed, as on the third or fourth day, two per cent. solutions of silver nitrate will give the best results. In children the silver can only be dropped in the eye, as they will not tolerate the applications. However, the results are generally good. In ophthalmia neonatorum protargol is often of great use. When the solutions of silver are found to be too irritating a six per cent. solution of protargol may be used. (3) The treatment of conjunctivitis due to the ordinary pus germs Silver nitrate should not be used in these cases. Six per cent solutions of protargol will be sufficient. If it is used for too long a period it will stain the conjunctiva. Argyrol, in twenty-five per cent. solution, may be used in place of protargol. It has the advantage of being absolutely non-irritating.

Letters to the Editor.

ICE IN THE TREATMENT OF MINOR BURNS.

New York, June 10, 1903.

To the Editor of the New York Medical Journal and Philadelphia Medical Journal:

Sir: Concerning the ice treatment of minor burns, reported in the March, 1903, number of the *Postgraduate,* the following case would seem to offer a good illustration in all probability of sufficient interest to some of your readers.

M. M., æt. twenty-three, on May 19th, by an accidental spilling of a large kettle with boiling green peas and other ingredients, had her thinly clothed right arm burned from about two inches above the elbow to the tips of the fingers. As customary in the house, an attendant at once smeared the burn with salad oil and put on ice as best she could. At my arrival, no vessels large enough for the immersion of the entire lower arm being at hand, packings with ice or ice in some water to every part of the burnt surface did not proceed satisfactorily for about an hour. Shock also had to be overcome. Then two large pieces could be obtained which could be grooved out, the one to place the arm lengthwise into, the other to serve for covering. Partly because of the intensity of the burn, but probably more through the protracted primary delay, complete and permanent freedom from pain except for a returning narrower slightly itchy area about two inches posteriorly above the elbow, did not ensue until five hours from the beginning, a very unusual length of time. Now, ready for the dressing, a salve was prepared of about three parts of petrolatum and two parts of olive oil, with 2 per cent. of iodoform, the latter replaced on the fourth day by a small percentage of balsam of Peru, which, thickly smeared upon a double thickness of absorbent gauze, was placed next to the skin, with careful avoidance of the pricking of the blisters to utilize the very efficient properties of the serum within them. These dressings were renewed once daily, with the result that on June 3rd, the fifteenth day after the injury, the formation of new skin was complete, so that except at a few very small places the burnt tissues could be lifted off in large, continuous sheets. At some places, especially over the belly of the supinator longus and around the elbow, the new cuticular tissue was as yet thin enough to allow the vascular layer to shine through brightly, but after four more days, when the dressing could be simplified to anointing the arm with the salve directly with an absorbent bandage for a cover, healing was complete, and the patient could again resume her daily labor. The new skin was entirely normal, no scar or other deforming tissue; sleep natural after the second night; spirits and appetite good throughout. C. Am Ende, M. D.

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Herrick on Conservative Surgery.—In the *Hesperides* of Robert Herrick (number 809) the poet sings:

> 'Tis the Chyrurgions praise, and height of Art,
> Not to cut off, but cure the vicious part.

Book Notices.

The Diagnosis of Diseases of Women. A Treatise for Students and Practitioners. By Palmer Findley, B. S., M. D., Instructor in Obstetrics and Gynæcology, Rush Medical College, in affiliation with the University of Chicago; Assistant Attending Gynæcologist to the Presbyterian Hospital, Chicago. Illustrated with Two Hundred and Ten Engravings in the text and Forty-five Plates in Colors and Monochrome. Philadelphia and New York: Lea Brothers & Co., 1903. Pp. v-494. (Price, Cloth, $4.50; Leather, $5.50 net.)

Dr. Findley has done a real service to the profession in writing this book. Textbooks and manuals of gynæcology abound, and all of them dwell upon the necessities and methods of diagnosis. But a work devoted to diagnosis has long been needed, and this need is well filled by the book before us. Its conception is proper in that the author bases his diagnostic procedures, first, on examination, and then on pathological findings, while ætiology is considered in its proper light, the diseased or abnormal conditions being traced to their pathological origin or to embryological defects. It is, therefore, a scientific book, and in its clinical features it is no less worthy. The development of the clinical history, and the methods of gynæcological examination, together with the broad view taken of the genital diseases of women as related to occupation, mode of life, and other diseases, are very admirably set down. It constitutes, therefore, a serviceable and safe book for the student in his gynæcological studies, and an excellent work for the practitioner to have at hand.

If the book lacks one element, it is the absence of the philosophy of gynæcology. The subjects are presented in a somewhat disjointed manner, and their manifest and proper relation to each other is not brought forward with the clearness with which it might be. Each topic is discussed by itself rather independently, although, as a rule, the subjects are all thoroughly treated. Especially good we consider the chapters on tubal pregnancy, on uterine displacements, and on the neoplasms of the uterus and the ovaries. It is evident that, while trying to be as thorough as possible, the author endeavored also to be concise and terse.

Here and there are omissions which we hope to see filled in the next edition. No mention is made of the value of blood examinations, especially in the purulent conditions in the pelvis. Uterine atrophy is not discussed at all. No distinction is made between cysts of the vulvovaginal gland and abscesses of the organ. Transverse sæpta of the vagina, important in their gynæcological aspects, are only mentioned, whereas a description and a means of diagnosticating them seem called for in a book of this character. These are a few of the important omissions. Opinions will probably not agree as to some of the author's statements. Thus, he gives as the cause of the habit of abortion—which does not exist—in cases of retroversioflexion, the congestion of the uterus. It is much more probable that the inability of the uterus to rise out of the pelvis at the end of the third month is responsible for the repeated abortions seen in women who suffer from this form of displacement. At any rate the author's dogmatic statement is scarcely warranted. Again, his dictum that Jewish women reach the menopause earlier than others in the same climate does not agree with the facts in the case.

We note a few typographical errors. The illustration on p. 153 is labeled " . . . . of a chorionic villi," when the singular should have been employed. Kreutzmann is spelled Krentzmann (p. 148). The author spells Bartholinian with a terminal "ean," which is, we think, unique.

These minor criticisms, however, are merely from the skimming of the milk. The cream of the book is excellent, and we do not doubt that it will be speedily absorbed. The illustrations, some of them in color, set off the book handsomely, and many of them are original. The work is useful, modern, and a worthy contribution to medical literature.

Surgical Anatomy. A Treatise on Human Anatomy in its Application to the Practice of Medicine and Surgery. By John B. Deaver, M. D., Surgeon in Chief to the German Hospital, Philadelphia. In Three Volumes. Illustrated by 499 Plates, nearly all Drawn for this Work from Original Dissections. Volume III. Abdomen; Pelvic Cavity; Lymphatics of the Abdomen and Pelvis; Thorax; Lower Extremity. Philadelphia: P. Blakiston's Son & Company, 1903. Pp. xii-17 to 816.

The third volume, dealing with the abdomen, pelvic cavity, lymphatics of the abdomen, pelvis, thorax, and lower extremity, completes this work, characterized by the abundance, exquisiteness, and accuracy of the illustrations. It is offered in an artistic form, exemplifying a high type of workmanship in book making to the attainment of which no less the skill of the artist than the judgment of the author have largely contributed.

The illustrations depict the regional anatomy to be considered in the area of surgical activity, but there are altogether too few pictures that set forth the limited anatomical region encountered and exposed by surgical incisions. Thus, there is portrayed an instance of pyloroplasty under conditions which we do not meet with on the operating table. The operative procedures are interwoven with descriptive anatomy, commendable for its terseness, but the narrative of the surgical facts is very fragmentary. In the case of the gall bladder the surgical considerations for the attack on this viscus in disease are wholly wanting.

The sympathetic plexus, which is for practical purposes *hors de combat* during operations, is most fancifully pictured, whereas we have nowhere observed a single illustration of the lymphatic glands. Concerning the latter we must dissent from the unsurgical advice to remove glandular enlargements in the vicinity of the larger vessels with the sharp spoon. These deficiencies are not singled out as instances of errors of commission or omission, nor in a spirit of hypercriticism, to detract from the excellence of the work, whose usefulness impresses us, not so much as offering applied surgical anatomy, but as presenting an anatomy infused with the life born of surgical intervention. Viewed in this light, we see a distinct *raison d'être* for the production of still another anatomy.

Upon the completion of this vast work we wish to congratulate the author on having provided us with an anatomy *in vivo* seen through the eyes of an active surgeon. So splendid a work augurs well for the future of surgical teaching in America, since the refinement of surgery is more and more dependent upon a thorough groundwork in anatomy.

The Practical Medicine Series of Year Books. Under the General Editorial Charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume IV. Gynæcology. Edited by Emilius C. Dudley, A. M., M. D., Professor of Gynæcology, Northwestern University Medical School, etc., and William Healy, A. B., M. D., Instructor in Gynæcology, Northwestern University Medical School. Chicago: The Year Book Publishers, 1903. Pp. 5 to 242. (Price, $1.25).

One can easily see the advances made in the various branches of medicine in the series of books of which this is one. In the present volume gynæcological literature down to February of the present year has been threshed out, and it is interesting to note how the specialists in this field of work vary their work from year to year. Not so much of operating and a variance of technics is noted as finer and more accurate methods of diagnosis. This is especially true, in this volume at least, of the diagnosis of vesical diseases. The series is valuable and useful, and this volume is no exception to the rule.

The Surgery of the Head. By Bayard Holmes, B. S., M. D., Professor of Surgery in the University of Illinois, etc. New York: D. Appleton & Company, 1903. Pp. xv-569.

A series of books dealing with surgical emergencies is in course of preparation, of which this is the first volume, which treats of the surgery of the head exclusive of the eye, ear, nose, and throat.

The manner of the presentation of the subject is radically different from that of other text books of surgery. It is a clinical narrative of the surgical exploits of a surgeon who has made the most of a large experience. As stated in the preface, the very commonplace, the less frequent but exigent, and the extremely important yet greatly theoretical conditions, are the basis of this quasi-emergency surgery. Unlike other emergency surgeries, this does not impress one as being purposely designed in a patronizing spirit to reach the "country doctor" or the surgical neophyte by offering first aid advice. The nineteen chapters which make up this book are excellent essays, not rendered in the time-honored didactic style, but colloquially set down, so that in reading these pages we are successively taken into the confidence of the surgeon consulted in his office, visiting at the bedside, operating in hut or hospital, epicritically considering his work in the laboratory, and finally summarizing his results under the red lamp.

Fourteen full-size plates and ninety other illustrations, well selected, materially aid in the understanding of the book. This monograph is written on the lines of the *études cliniques,* so favorite a form of literature in France. It is worthy of much imitation, since the deeds of the surgeon are thus preserved as a unit, and do not exist as fragmentary and scattered writings. The educational value of this book is of a high order, since it furnishes the very best kind of supplementary or collateral reading to the medical student.

BOOKS, ETC., RECEIVED.

The Refraction and Motility of the Eye. For Students and Practitioners. By William Norwood Suter, M. D., Assistant Surgeon, Episcopal Eye, Ear and Throat Hospital, Washington, D. C. Illustrated with 101 engravings in the text and 4 plates in colors and monochrome. Philadelphia and New York: Lea Brothers & Co., 1903. Pp iii-390. (Price, $2.00.)

Arteria Uterina Ovarica. The Utero-Ovarian Artery, or The Genital Vascular Circle. Anatomy and Physiology, with their Application in Diagnosis and Surgical Intervention. Byron Robinson, B. S., M. D., Chicago, Ill. Author of "Practical Intestinal Surgery," "Landmarks in Gynæcology," "Life-Sized Chart of the Sympathetic," "Abdominal Brain," "Colpoperineorrhapy and the Structures Involved," "The Ureter," "Gynæcologic Charts of Genital Circulation." Chicago, Ill.: E. H. Colegrove, 1903. Pp. iii-182. (Price, $1.00.)

The Surgical Treatment of Gastric and Duodenal Ulcers. By B. G. A. Moynihan, M. S. (Lon.), F. R. C. S. Eng., Senior Assistant Surgeon, Leeds General Infirmary; Consulting Surgeon to the Skipton Hospital and to the Mirfield Memorial Hospital; Member of the Board of Examiners in Anatomy for the Fellowship, and formerly Arris and Gale Lecturer, Royal College of Surgeons of England. Illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Pp. 5-83. (Price, $2.50.)

Proceedings of the Nebraska State Medical Society. Thirty-fourth Annual Session. 1902.

Transactions of the American Roentgen Ray Society. Third Annual Meeting. Chicago, Ill.

Proceedings of the New York Pathological Society. December, 1902.

The Economic Proceedings of the Royal Dublin Society. July, 1902. Vol. I., Part 3.

A Contribution to the Study of Malignant Endocarditis. By F. J. Poynton, M. D., M. R. C. P. and Alexander Paine, M. D. (From Vol. 8, of the Medico-Chirurgical Transactions). London: 1903. H. K. Lewis, 1903.

A Further Contribution to the Distribution of Cancer. From the *Practitioner* for May, 1903. By D'Arcy Power, F. R. C. S. (Eng.). Senior Surgeon to the Victoria Hospital for Children, Chelsea; Assistant Surgeon at St. Bartholomew's Hospital, E. C. London: *The Practitioner*, Limited, 30 Holborn, E. C.

The Scientific Transaction of the Royal Dublin Society. September, 1902. With title-page and index to Vol. vii. Vol. viii. (Series ii.), Part I. Part I. On the Magnetic and Electric Properties of an Extensive Series of Alloys of Iron. Part III., by W. F. Barrett, F. R. S.; W. Brown, B. Sc.; and R. A. Hadfield, M. Inst. C. E. With plates, i-iv. Dublin: 1902. Pp. i-22.

The Scientific Transaction o fthe Royal Dublin Society. April, 1902. Vol. vii. (Series ii.) Part XIV. The Results of an Electrical Experiment, Involving the Relative Motion of the Earth and Ether, Suggested by the late Professor Fitzgerald. By Fred. T. Trouton, D. Sc., F. R. S, University Lecturer in Experimental Physics, Trinity College, Dublin. Dublin: 1902.

The Scientific Transactions of the Royal Dublin Society. Vol. vii. (Series ii.) Part XVI. Some Sedimentation Experiments and Theories. By J. Joly, D. Sc., F. R. S., F. G. S., Honorary Secretary R. D. S., professor of Geology and Mineralogy, Trinity College, Dublin. Dublin: 1902.

The Scientific Transactions of the Royal Dublin Society. May, 1902. Vol. vii. (Series ii.) Part XV. Some New Forms of Geodetical Instruments. By Sir Howard Grubb, F. R. S., Vice-Pres. Roy. Dub. Soc. Plate xxxiv. Dublin: 1902.

Miscellany.

Surgery of the Heart.—By Benjamin Merrill Ricketts, Ph. B., M. D. (*concluded* from p. 1149).

ANGEIOMA.

1887-1903.

Angeiomata are infrequent, erectile or vascular and cancerous when the alveolar spaces communicate with one another. They develop, on the external or internal surfaces of the heart alike, and in the same manner. They may rupture into one or all the chambers of the heart, and may enter the general circulation, producing death by embolism or otherwise.

There have been ten contributions to this subject.

PARASITIC DISEASE OF THE HEART: ECHINOCOCCUS.

1717-1903.

The echinococcus may attack any portion of the heart. The cysts may rupture into the pericardial or pleural cavity, or into any one or all of the chambers of the heart, and thereby enter the general circulation.

Kortholt (1717) was the first to describe this form of cardiac cysts.

There have been about sixty contributions to this subject.

CYSTICERCUS.

1852-1903.

Cysticercus is of two forms, saginata and solium. It is found more frequently in India and England, but it has been discovered in all parts of the civilized world. The urinary bladder is the most usual location, but it has been found in the heart by Lendet, in 1852, since which time there have been nine other contributions to this subject.

TRICHINA SPIRALIS

is very rarely found in the heart. The female is larger and more numerous than the male, and when found in the heart the condition is of secondary origin.

PARAGONIMUS WESTERMANI

is a trematode found in Asia, and is known as a lung fluke. It is occasionally found in the heart, and when there found is probably secondary.

MYCOSIS

of the heart consists of fungoid neoplasms showing an abnormal growth of lymphatic glands. It is caused by pathogenic microbes (bacterial or parasitical) in the organism.

They were described by Julia, in 1846.

ACTINOMYCES

was discovered by Langenbeck. It is a vegetable parasite occasionally found in the heart; may be primary or secondary. The infection of the heart is usually from the left lung, which is more frequently affected than the right lung. The nodules are thread-like, pearly or yellow, and from one half to two millimetres in diameter. They undergo fatty degeneration and cause abscess, which may rupture into the cardiac chambers or pericardial sac. Carnivorous animals seem to be immunized to this disease.

ASPERGILLUS

is a vegetable parasite discovered by Virchow, in 1856. It is of three varieties: *Aspergillus fumigatus; Aspergillus niger; Aspergillus flavius.* Of these, *Aspergillus fumigatus* is the most dangerous; it is green in color, and grows best in an atmosphere from 37° to 40° C.

OIDIUM ALBICANS

is a vegetable parasite seldom found in the heart. It forms delicate horizontal filaments which are apparently homogeneous in structure, and from which short articulated pedicles take their rise.

There have been fifteen contributions to this subject.

BACILLUS ANTHRACIS

has become generally distributed over the world, but seldom affects man. It was found in the human heart by Davaine and Rayer, in 1850. Koch, however, was the first to discover the spores.

It may be primary or secondary in the heart, and the period of incubation is from a few hours to four days.

BACILLUS ŒDEMATIS MALIGNI

causes a progressive gangrenous œdema and emphysema resembling that caused by the bacillus anthracis. It is found on all serous surfaces, internal organs being but slightly affected. It is often associated with the bacillus of tetanus and originates in foul and fæcal matter, garden earth, and filth in general. It is one of the rare bacilli found in the heart.

BACILLUS TUBERCULOSIS

may be primary or secondary in the heart; it is more frequently secondary. It is found in the form of nodules, miliary abscesses, or ulcers varying in size. It may invade the endocardial or pericardial surfaces or the muscular structures, in part or as a whole. It may occur in childhood, but is more frequent between the fifteenth and thirtieth years.

Macmichael (1826) found tuberculous deposits in the cardiac cavities. Post (1830), Hache (1832), Gillman (1842), Banks (1850), and Gros (1859), each record a case of cardiac tuberculosis.

There have been seventy-five contributions to this subject.

BACILLUS ÆROGENES CAPSULATUS (GAS BACILLUS)

has been found in the heart muscles of rabbits, by Ohlmacher, who says that it was not found in the smears from the blood of the heart.

It was first described by Welsh, who thinks that it practically dominates the whole field of pneumatopathology. It is extremely virulent, but dies at about the end of the fourteenth day.

BACILLUS TYPHOSUS

Vincent. So far as known such lesions are secondary, and their effect is not understood.

CONCLUSIONS.

1. The heart may have only one auricle and one ventricle, or it may have five cavities.
2. The heart may be in the right thoracic cavity or in the abdominal cavity.
3. Removal of the pericardium does not of itself cause death.
4. It may, however, cause death subsequently, as the result of extensive cardiopneumonic adhesions.
5. Exploration of the walls and chambers of the heart with a knife or needle for foreign bodies or pathological conditions should be done, but only after the pericardium has been opened for ample space. It is rational, justifiable, and safe.
6. Not all wounds of the myocardium will require suture, but the pericardium should be opened to remove clots and make drainage available.
7. A myocardial abscess or cysts of any character can be incised by knife or needle and drained through an open pericardium.
8. Gangrene of the heart demands incision of the pericardium and drainage of the pericardial cavity.
9. Malignant disease of the heart at this time resists treatment of any kind.
10. Aneurysm, mitral stenosis, hypertrophy and dilatation of the heart may be more or less successfully dealt with by surgical methods yet to be determined.
11. The injection of hot water or gelatin into angeiomata of the heart may add to the solution of their treatment.
12. Aneurysm of the coronary artery should be treated by proximal ligation.
13. Ligation of one coronary artery at its origin or elsewhere will not of itself produce death.
14. Rupture of the heart, spontaneous or otherwise, demands suturing (immediate death does not always occur).
15. Pedunculated tumors upon the external surface of the heart can be successfully removed.
16. Pedunculated tumors within the cardiac chambers may also be removed.
17. Lacerated, incised, and punctured wounds (penetrating or nonpenetrating) of the heart can be successfully sutured.
18. Suture of wounds in the aortic arch can be successfully done.
19. Interrupted sutures of fine silk and the smallest practical needle are preferable for suturing the heart and ligating the coronary artery. Continuous sutures should not be used; if one breaks all are lost.
20. Suturing or any other surgical procedure should not be discontinued because of the heart ceasing to pulsate. The work can and should be completed in a much shorter time on a quiescent heart.
21. Divulsion of the sphincter ani and all methods

of resuscitation should be persistently followed while operation is being conducted.

22. The removal of cardioliths (intramyocardial or within the chambers) is possible, and should be attempted when they cause serious trouble.

23. The x ray will greatly aid in determining their presence.

24. They are usually in the apex of one of the ventricles of bipeds.

25. When found in the myocardium they are usually in the ventricular wall (most frequently that of the left, which is thicker) and as a rule are contained within a cyst.

26. There have been about fifty-three operations upon the heart for injury, with eighteen recoveries.

Swallowed a Tube of Ergotine Tablets.—We have all heard of the case in which the label on the bottle of medicine, "to be shaken before taken," was understood by the attendants to apply to the patient instead of to the medicine. Dr. Herbert Gregory reports, in the *Lancet* for May 23rd, a parallel case. Being called to a premature labor at a place some miles distant from his residence, and in view of possible hæmorrhage, he left behind a tube of hypodermic ergotine citrate ($^1/_{100}$ of a grain), with instructions that the patient was to "take two of these," meaning the tablets, if necessary. The necessity thus provided for arose. On being subsequently summoned to the patient, Dr. Gregory asked for the tube of ergotine, and to his astonishment learned that a neighbor in attendance had mistaken the instructions and given the one tube bodily, with all its contents, and had looked in vain for a second. Castor oil was administered, and four days later the tube was passed entire, fortunately with its cork *in situ,* and the contents unaffected.

The Hour of Death.—The *Gazette médicale de Paris* for May 30th says that according to a daily paper, a physician has noted the hour of death of 2,880 persons of all ages in a mixed population, and during a period of several years. The maximum hour of death is from 5 to 6 a. m.; the minimum from 9 to 11 a. m. In the first case the mortality is 40 per cent. greater than the average, and in the latter, 6½ per cent. less. From 10 a. m. to 3 p. m. in the day, the mortality is not high, and the most fatal hours are from 3 to 6 in the morning.

It seems to the *Gazette* that these observations are easily explained. In 1864 Haviland presented statistics to the British Medical Association to the effect that in the 5,000 to 6,000 cases he had noted, death had resulted in the great majority of cases between 1 and 8 a. m.; the practical deduction from which fact is that death generally comes when the sick are least nourished and cared for. If care were taken, death could be postponed in many cases. More recently, in 1888, Féré, investigating the subject at the Salpêtrière and at Bicêtre, found the fewest deaths between 7 p. m. and midnight, and the most fatal hour between midnight and 1 a. m. This would seem simply to show that the nurses going off duty at midnight left as much work as possible to their successors.

Twin Pregnancy with a Complete and Almost Closed Hymen.—Dr. C. K. Bowes reports in the *British Medical Journal* for May 9th the case of a primipara, thirty-eight years of age and married five years, in whom he found the pains strong, prolonged, and frequent. On attempting to make a vaginal examination, he could find no orifice, but with the aid of a light he found that the hymen was unruptured; it had a hole in it about three-tenths of an inch in size. He could not get his little finger through the hole, as it was so small and the hymen so sensitive. He gave the patient chloroform, ruptured the hymen, and found a head presenting with the membranes ruptured and the os fully dilated. He delivered her with forceps, and as the uterus seemed very large, be examined again, and felt another bag of membranes, which he ruptured, and found a breech presentation, and had no difficulty in delivering the twin. There was one large placenta. The husband, when questioned, afterward said he did not think he had ever penetrated.

A Serial on Cereals.—*Puck,* for June 10th, gives the following suggestion for a "breakfast food" advertisement. It certainly contains more truth than many advertisements on the same subject:

Secgrohic!

Something entirely new! The greatest discovery of the age!

A revolution in breakfast foods!

All the wood that's fit to eat!

Secgrohic is the sawdust of second-growth hickory. It sells at the same price as do the ordinary breakfast foods made of dead and down timber.

Why not have the best when it costs no more?

Every package sterilized.

An English Physician's Experience at the Madrid Congress.—The correspondent of the *British Medical Journal* for May 9th humorously relates his experience with his landlady, when leaving Madrid, as follows:

"Then came the question of paying. I had arrived there on Thursday afternoon, and I left on Monday afternoon, and this, at ten pesetas a day, made, according to my calculation, forty pesetas. I therefore laid eight new silver cart-wheel pieces of five pesetas on the table. These she counted over, and then claimed ten pesetas more, insisting that from Thursday to Monday was *five* days. She affirmed that I should not leave her house until I paid what she demanded, and rushing off to the main door of her flat she shut and bolted it, and stood with her back against it. It was necessary for me, therefore, to carry her away from the door before I could open it and escape with my portmanteau. With the help of a messenger the portmanteau was then put on the box of an open cab. The lady having disappeared I thought that I was all right, and I told the *cochero* to drive to the Estación del Norte. But before we were under way the lady reappeared with a policeman, and practically gave me in charge for attempting to defraud her!

"The Calle Montera leads down into the Puerta del Sol, a splendid open space about four times the size of Piccadilly Circus, and as the lady kept on accusing me and gesticulating, a crowd was collecting. Then two more policemen arrived and stood over me as I sat in the victoria. They asked me for my version of the affair, and I told them I had agreed to pay the lady ten pesetas a day for a small room, and I ended by saying, *"Aun he pagado demasiado, y no pagaré mas!"* (I do not quote this as classical Spanish; I merely repeat what I kept saying to the police—I had already paid her too much and I did not intend to pay her any more.) By this time the lower end of the Calle Montera was chokefull of people who were interesting themselves in the altercation, and a crowd was beginning to surge up from the Puerta del Sol. The electric tram-line was blocked, and all traffic rendered absolutely impossible. I never saw a crowd collect so quickly, and I certainly never occupied so central a position in one.

"In the height of all this excitement a gentleman wearing the Congress badge came up to me and asked me if I were an Englishman. He assured me that he was immensely amused at the scene, and, having heard my story, told me that *his* landlady had done him out of 100 pesetas. I then asked him to beg the cabman to try his best to hurry away; but he replied he could not do this as he did not know the Spanish word for *hurry*. However, it did not matter, for so anxious had I been to leave my miserable lodging that I had ordered the cab two hours before it was wanted, and "I had all the time," as the French say. Eventually, perhaps because it was the simplest and the easiest way of clearing the street for traffic, the police allowed me to go, and as I left I saw the lady still holding out that handful of new silver, and violently gesticulating against what she pretended to think was deliberate fraud. As the crowd made way for me I waved them a triumphant, and, I hope, graceful *adios*, thankful to have got away."

An Ancient Greek Epitaph on a Physician.—Empedocles, who was born at Agrigentum, in Sicily, about 455 B. C., has left us, among other epigrams, an epitaph on a physician named Pausanias. It contains a pun on the physician's name, the word παύω signifying "to cause to cease." A rendering is given in Abraham Mill's *Poets and Poetry of the Ancient Greeks*, as follows:

> Pausanias—not so named without a cause,
> As one who oft has given to pain a pause—
> Blest son of Æsculapius, good and wise,
> Here, in his native Gela, buried lies;
> Who many a wretch once rescued by his charms
> From dark Persephone's constraining arms.

Ferments in the Amniotic Fluid.—Dr. Josef Bondi (*Zentralblatt für Gynäkologie*, May 23d) concludes from his studies that the amniotic fluid regularly contains ferments, especially diastase and pepsin. The serum of an adult contains the same ferments, while the serum of the new-born child contains them only in traces or not at all. This would lead to the conclusion that the amniotic fluid is derived from the maternal serum. These ferments have no influence in determining the maceration of dead fœtuses; autolytic processes appear to play some rôle in the changes of the internal organs.

Official News.

Infectious Diseases in New York:

We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending June 20, 1903:

Diseases.	Week end'g June 13.		Week end'g June 20.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	413	17	331	13
Diphtheria and Croup	443	44	433	57
Scarlet fever	315	15	228	19
Small-pox	1	0	0	0
Chicken-pox	102	0	90	0
Tuberculosis	343	145	283	112
Typhoid fever	59	6	50	7
Cerebrospinal meningitis	0	3	0	0

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera and plague, have been reported to the surgeon-general, Public Health and Marine-Hospital Service, during the Week ending June 20, 1903:

Smallpox—United States.

Place.	Date.	Cases.	Deaths.
California—Los Angeles	May 30-June 6	1	
California—San Francisco	May 31—June 7	1	
Colorado—Denver	May 2-23	70	
Florida—Baker County	June 6-13	1	
Florida—Duval County	June 6-13	3	
Florida—Escambia County	June 6-13	1	
Florida—Levy County	June 6-13	10	
Illinois—Belleville	June 6-13	3	1
Indiana—Evansville	June 6-13	2	
Louisiana—New Orleans	June 6-13	1	
Massachusetts—Holyoke	May 31-June 6	2	
Michigan—Detroit	June 6-13	11	
Michigan—Flint	June 6-13	1	
Michigan—Grand Rapids	June 6-13	3	
Michigan—Port Huron	June 6-13	1	
Minnesota—Winona	May 30-June 13	2	1
New Hampshire—Nashua	June 6-13	7	
Ohio—Cincinnati	June 5-12	3	
Ohio—Dayton	June 6-13	6	
Ohio—Hamilton	June 6-13	1	
Pennsylvania—McKeesport	June 6-13	2	
Rhode Island—Warwick	June 8-15	4	
South Carolina—Charleston	June 6-13	2	
Tennessee—Nashville	May 23-30	1	
Utah—Salt Lake City	May 31-June 6	23	
Wisconsin—Milwaukee	June 6-13	16	

Smallpox—Foreign.

Brazil—Rio de Janeiro	May 3-10		5
Canada—Amherst, N. S.	June 12	3	
Canada—Fredericton, N. B.	June 12	5	
Canary Islands—Las Palmas	May 9-16	18	
Colombia—Barranquilla	May 24-31	1	
Colombia—Bocas del Toro	June 2	Epidemic.	
France—Paris	May 8-16		1
France—Paris	May 23-30		1
Great Britain—Birmingham	May 23-30	7	
Great Britain—Bradford	Mar. 30-May 23	100	5
Great Britain—Bristol	May 23-30	1	
Great Britain—Dublin	May 23-30	14	
Great Britain—Dundee	May 23-30	5	
Great Britain—Leeds	May 23-30	21	3
Great Britain—Liverpool	May 23-30	33	4
Great Britain—London	May 23-30	10	
Great Britain—Newcastle-on-Tyne	May 23-30	1	1
Great Britain—Nottingham	May 16-23	2	
Great Britain—Sheffield	May 23-30	1	
Great Britain—South Shields	May 23-30	1	
Great Britain—Sunderland	May 23-30	1	
India—Bombay	May 5-19		111
India—Calcutta	May 2-16		3
Japan—Kobe	Apr. 25-May 2	6	
Mexico—City of Mexico	May 17-31	31	13
Russia—Moscow	May 16-23	4	
Russia—Odessa	May 16-30	4	1
Russia—St. Petersburg	May 16-30	71	14
Russia—Warsaw	May 2-16		5
Straits Settlements—Singapore	Apr. 18-May 2		1

Yellow Fever.

Brazil—Rio de Janeiro	May 3-10	8	
Costa Rica—Limon	May 28-June 4	4	1
Mexico—Tampico	June 1-8	16	9
Mexico—Vera Cruz	May 31-June 6	26	8

Plague—United States.

California—San Francisco	June 5		1

Plague—Foreign.

Africa—East London	Apr. 12-25	2	
Africa—King Williams Town	Apr. 12-25	5	
Africa—Port Elizabeth	Apr. 12-25	15	
China—Hongkong	May 1-8	95	83
India—Bombay	May 5-19		740
India—Calcutta	May 2-16		171
India—Karachi	May 3-17	332	292
Japan—Yokohama	May 8-16		2
Peru—Callao	May 3-10		2

Cholera.

China—Canton	May 8		50
China—Hongkong	May 1-8	2	
India—Bombay	May 5-19		1
India—Calcutta	May 2-16		125
Turkey—Damascus	to May 15	94	84

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army, for the Week Ending June 20, 1903:

Edie, Guy L., Major and Surgeon. Assignment to Camp Monterey, Cal., revoked. Ordered to remain at Columbus Barracks, Ohio.

Huntington, P. W., First Lieutenant and Assistant Surgeon. Will proceed from Vancouver Barracks, Wash., to Boise Barracks, Idaho, to accompany the 17th U. S. Infantry to Manila, P. I.

Whitcomb, C. C., First Lieutenant and Assistant Surgeon. Will proceed from San Francisco, Cal., to Governor's Island, N. Y., for duty with army and navy manœuvres.

Naval Intelligence:

Official List of Changes in the Medical Corps of the United States Navy, for the Week Ending June 20, 1903:

Anderson, F., Medical Inspector. Commissioned medical inspector from January 31, 1903.

Dessez, P. T., Assistant Surgeon. Appointed assistant surgeon from June 10, 1903.

Dickson, S. H., Medical Inspector. Ordered home to wait orders.

Keene, W. P., Acting Assistant Surgeon. Detached from the *Truxton* and ordered to duty with the second torpedo flotilla.

Manchester, J. D., Assistant Surgeon. Appointed assistant surgeon from June 10, 1903.

Morris, L., Passed Assistant Surgeon. Detached from the *Puritan* and ordered to the *Florida*.

Parker, J. B., Medical Director. Retired from active service, from June 20, 1903, under provisions of Section 1454, R. S.

Taylor, J. S., Passed Assistant Surgeon. Commissioned passed assistant surgeon from November 8, 1902.

Woodward, J. S., Assistant Surgeon. Appointed assistant surgeon from June 10, 1903.

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-commissioned Officers of the Public Health and Marine Hospital Service, for the Seven Days Ending June 18, 1903.

Glennan, A. H., Assistant Surgeon-General. Detailed as Assistant surgeon-general in charge of the Domestic Quarantine Division in the Bureau of Public Health and Marine Hospital Service.

Stoner, J. B., Surgeon. Granted leave of absence for one month, from June 30.

Rosenau, M. J., Passed Assistant Surgeon. To proceed to Greenpoint, N. Y., for special temporary duty.

Rydegger, J. A., Passed Assistant Surgeon. Relieved from duty at Cincinnati, Ohio, and directed to proceed to Sault Ste. Marie, Mich., as inspector of immigrants.

Sprague, E. K., Passed Assistant Surgeon. Granted leave of absence for seven days, from June 4, 1903, under paragraph 191 of the regulations.

Grubbs, S. B., Passed Assistant Surgeon. Bureau telegram of May 13, 1903, granting Passed Assistant Surgeon Grubbs leave of absence for one month, amended so that said leave shall be for one month from May 23d.

Decker, C. E., Assistant Surgeon. Granted extension of leave of absence, on account of sickness, for twenty-two days, from June 9th.

Lord, C. E. D., Assistant Surgeon. Relieved from duty at Galveston, Texas, and directed to report to medical officer in command at San Francisco Quarantine for assignment to special duty.

Sibree, H. C., Acting Assistant Surgeon. Granted leave of absence for six days, from June 16th.

Carlton, C. G., Pharmacist. Granted leave of absence for thirty days, from June 1st.

Boards Convened.

Board convened for the examination of Assistant Surgeon M. K. Gwyn, to determine his fitness for promotion to the grade of passed assistant surgeon. Detail for the board: Assistant Surgeon-General L. L. Williams, chairman; Assistant Surgeon-General W. P. Pettus; Assistant Surgeon V. G. Heister, recorder.

Board convened for the examination of Assistant Surgeon W. C. Hobdy to determine his fitness for promotion to the grade of passed assistant surgeon. Detail for the board: Assistant Surgeon-General L. L. Williams, chairman; Assistant Surgeon-General W. J. Pettus; Passed Assistant Surgeon L. E. Cofer, recorder.

◆

Births, Marriages and Deaths.

Born.

Herbst.—In Kansas City, Missouri, on Friday, June 5th, to Dr. and Mrs. Philip Francis Herbst, a son.

Married.

Boyle—Doster.—In Ridley Park, Pennsylvania, on Monday, June 8th, Dr. Morris Parker Boyle and Miss Estelle Doster.

Giles—Vanderbeek.—In Englewood, N. J., on Thursday, June 18th, Dr. J. Edward Giles and Miss Mary Courtland Vanderbeek.

Moore—Purdom.—In Kansas City, Missouri, on Monday, June 1, Dr. Frederick Everett Moore and Miss Hezzis Purdom.

Orella—Schweitzer.—In San Francisco, California, on Wednesday, June 10th, Dr. Farmin Orella and Miss Albertine Schweitzer.

Sankey—Newhard.—In Lansdowne, Pennsylvania, on Wednesday, June 17th, Dr. Thomas Morton Sankey and Miss Anna S. Newhard.

Van Horne—Huntoon.—In Waterford, Michigan, on Wednesday, June 10th, Dr. James Apthorp Van Horne and Miss Lutie Huntoon.

Died.

Armstrong.—In Atlantic City, N. J., on Thursday, June 11th, Dr. Leon Armstrong, in the fifty-second year of his age.

Boal.—In Lacon, Illinois, on Friday, June 13th, Dr. Robert Boal, in the ninety-seventh year of his age.

Halsted.—In New York, N. Y., on Wednesday, June 17th, Dr. John C. Halstead.

Heath.—In Syracuse, N. Y., on Wednesday, June 10th, Dr. Delos Heath, in the seventy-sixth year of his age.

Jones.—In Jacksonville, Illinois, on Tuesday, June 16th, Dr. Hiram K. Jones, in the eighty-second year of his age.

Love.—In New York, N. Y., on Thursday, June 18th, Dr. I. N. Love, in the fifty-fifth year of his age.

Lyon.—In Washington, D. C., on Thursday, June 11th, Dr. William A. Lyon.

Mayo.—In Coleman's Falls, Virginia, on Saturday, June 13th, Dr. Littleton Upshur Mayo, in the seventy-eighth year of his age.

Scott.—In Lawrence, Massachusetts, on Wednesday, June 10th, Dr. Chester W. Scott, in the seventy-second year of his age.

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School of Medicine and Affiliated Hospitals

June 19, 1935

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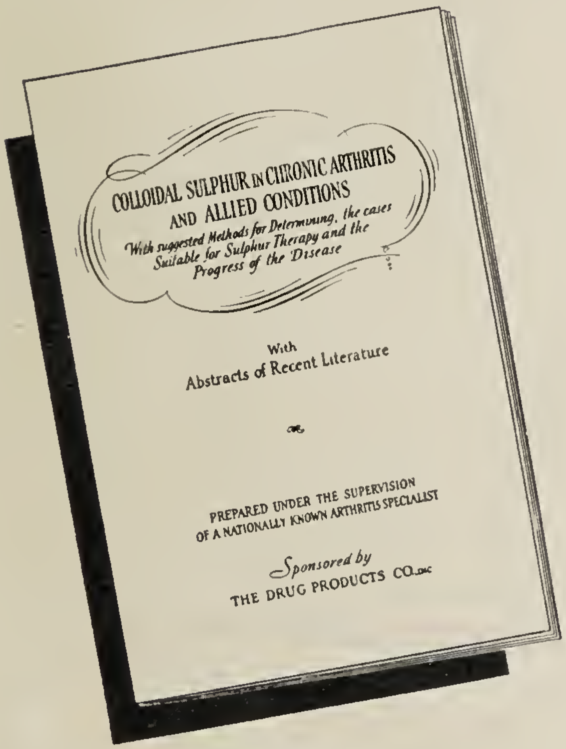

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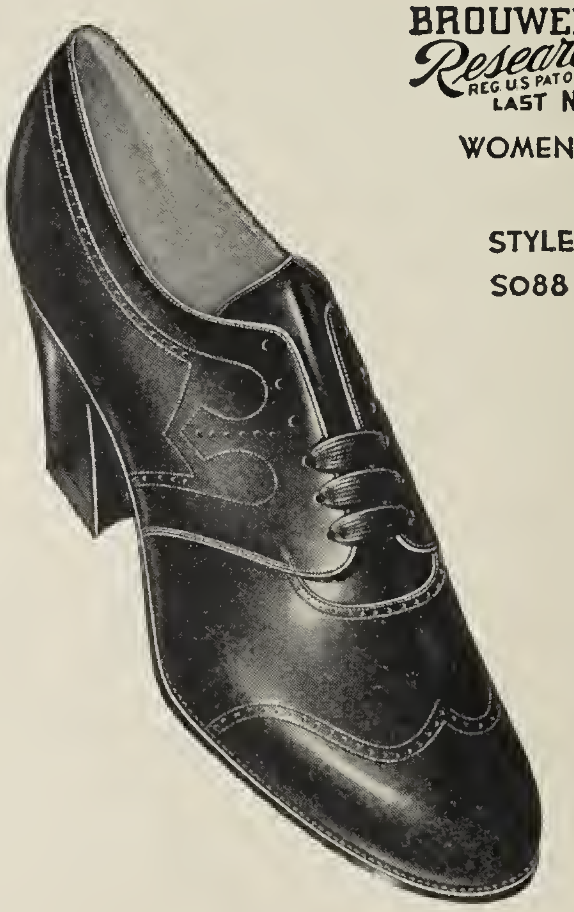

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Open Forum

Something About Children

Ever since the time of Abraham Jacobi, the disorders and diseases of children have had a name: Pediatrics. At the time of Jacobi, the study of pediatrics was limited mostly to the infectious diseases. Today, however, we include in the general broad study of pediatrics the disorders of behavior and emotional imbalance.

We are going to have a symposium in the next issue of MEDICAL RECORD that is going to be a real modern presentation of pediatrics. The emotional reactions of children will be discussed by Dr. Ira S. Wile; the psychopathological behavior of delinquents—and every child is a delinquent in a small way—will be taken up by Dr. W. Béran Wolfe. The question of school health in children will be presented by Dr. Frederick L. Patry. The medical factors in infant mortality receive careful attention by Dr. Dwight M. Lewis of New Haven.

There will be other articles in this symposium, including a clinical study of dexin by Dr. Harold Rosenberg and Dr. Camille Kereszturi of New York.

A special article dealing with medical conditions in Russia and other European countries, by Dr. Abraham Lightstone of New York, will be found interesting. Dr. Lightstone has seen the things that he has written about. There will be numerous other articles, including special features, and all in all we feel that the next issue of the MEDICAL RECORD will be an unusually good one and well worth the careful attention of our many readers.

◆

Correction

To the Editor:—

An error crept into my paper on Trichomonas Vaginalis Vaginitis which appeared in your worthy journal, April 3, 1935. Could you insert a correction in your journal?

On page 342, second column, fifth paragraph, immediately following a quotation by Dr. Gellhorn, the sentence beginning "This author" should read "The author (Goldstein) has likewise obtained excellent results," and so on. The powders I used contained salicylic acid. Dr. Gellhorn objected to the phrase as printed. I should like to have credit for the use of salicylic acid.

A few years ago, it was mentioned in an article on vaginal trichomoniasis in the pregnant woman by P. B. Bland, L. Goldstein, and D. H. Wenrich (*J. A. M. A.*, Jan. 17, 1931), that drying powders, such as purified kaolin, have also been suggested and used. I do not claim any specificity for acetarsone in the therapy of trichomonas vaginitis, but believe that the successful treatment of the condition depends primarily on the thorough and complete application of the antiseptic substance.

I would appreciate if you could find space to make the necessary correction in the RECORD.

LEOPOLD GOLDSTEIN, M.D.,
Philadelphia.

Fees, Finances, Sense and Service

Are low fees and poor collections the cause of the physician's low income? There are many who would have us believe so, and indeed it is true in some cases. Paradoxical as it may sound, in many instances, however, a low income is the result of high fees. Especially has this been true during the past four years when the cost of everything has been on the toboggan. Why should a physician still charge the same fee as in 1929 when he can buy a sack of flour for three-quarters as much as he could then, or rent a house for half as much as was then possible?

One reason our County Hospitals are overflowing is that patients are not able to pay a private fee, which has become a luxury entirely out of proportion to their income. Why give a man the "county hospital habit" when a fee reduction will keep him a private patient? The abuse of charitable institutions is well recognized and much is being done to correct this; physicians can help by keeping as many on the private list as can pay even a small fee,—if one's own practice is crowded, there are others, probably younger men, whose practice is not too large to accommodate the small fee patient.

A day or so ago, a patient whom I had never seen before, began to leave my office after an examination without offering to pay or make any financial arrangements. Not an uncommon occurrence you say; and indeed it is not. But would he do the same to the barber or to the garage man? The reason he does it after receiving medical service is because he and his relatives and his friends have been trained by former physicians to ignore any financial obligations—it did not matter much either way. My first impulse was to let the patient go, that would have been the easiest thing to do. But on second thought I stopped him and made definite financial arrangements. It was the bookkeeper's job, but in his absence the unpleasant task fell to me.

A sure way to increase the percentage of collections is to have a financial understanding from the first visit, to adjust fees so that the patient can pay them and to let him know he is expected to pay. Otherwise when he receives his bill the first of the month he might be surprised at its size, might be unable to pay it, and therefore never make an attempt. It is better for the patient, for the physician, and for the medical profession in general to make a fee the patient can pay and collect it, than to fail to collect a fee which is beyond the patient's means.

A few years ago, a physician of my acquaintance bought a ranch in a neighboring county for the purpose of supplementing the income from his practice. The management of this new venture occupied his time during each weekend, and frequently during the week also. It was not long before his practice began to fall off because of his frequent absences

(*Continued on page 11*)

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from the office. It took a few years for him to learn that he was neither an expert rancher, nor a good doctor when he tried to be both at the same time. Another friend went into the apartment house business as a sideline. He lost money also, and learned a lesson he says he will not forget. All of us have probably found that we are not quite as good at playing the stock market as we at one time thought we were. It is rare indeed to find a successful practicing physician at the same time making a success of another business which requires a portion of his time. Therefore, it is sensible to assume that the more the physician puts his mental power and undivided attention into his practice, the greater his income will be.

The other day I stopped at a service station after a long drive to obtain some gasoline. The windshield was dirty and the radiator needed water. When the attendant had filled the gasoline tank and collected his money, he went on about his business without attempting or offering to clean the spots off the windshield, nor to fill the radiator. Needless to say, the next time I needed service I hunted a station where I knew I would get it.

People like service, and other things being equal, they will go to the physician's office where it is given. A cheery greeting when the patient enters the waiting room; an apology if the doctor is unable to see him immediately; a welcoming handshake when he enters the consultation room, and a hearty good-bye when he leaves, all help to make him feel like coming again. It cheapens a physician's services to count pennies with a patient. Why put a padlock on the metered telephone when the patient pays nearly one hundred times as much for an office visit as it costs you for him to use the phone once? Does the physician feel generous toward the hospital where he takes his patients if he has to pay for every call he makes while there? Some doctors even have a "penny-in-the-slot" machine from which the patient is to obtain his paper cup for a drink of water.

These are four ways by which a physician may increase his income: 1. Make fees the patient can pay. 2. Make the patient feel his financial obligation from the start. 3. Make your practice your first interest and obligation, using sense regarding other ventures which might take your time. 4. Make the patient feel he is getting service.

Roger W. Barnes,
Los Angeles, Cal.

County Hospital a Charitable Institution

A hospital established under a statute authorizing counties to establish hospitals, which were to own no property, have no income and no method of raising money and hence no ability to pay anything, with no statutory provision that they might sue and be sued, was held not liable for the alleged negligence of a nurse employed by the hospital in dropping into one of the plaintiff's eyes a liquid not prescribed by plaintiff's physician, which destroyed plaintiff's eyesight. McKay vs. Washoe General Hospital, Nevada Supreme Court, 33 P. (2d.) 755.

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Our Contributors

Milton Arlanden Bridges, B.S., M.D., F.A.C.P., New York, was graduated from the College of Physicians and Surgeons, Columbia University, in 1919, and served his internship at the New York Post-Graduate Hospital. He is associate in medicine and lecturer on therapeutics at the New York Post-Graduate Medical School, Columbia University; assistant attending physician, New York Post-Graduate Hospital; director of medicine, Department of Correction Hospitals, New York; secretary of the Medical Board, Department of Correction Hospitals; and consulting physician at Seaview Hospital, Staten Island. He is a member of the New York County and State Medical Societies, Fellow of the American Medical Association, the American College of Physicians and the New York Academy of Medicine, and treasurer of the New York Medico-Surgical Society. He has written a number of valuable papers, and is the author of *Dietetics for the Clinician,* the second edition of which was published early this year.

* * *

Ralph R. Moolten, B.A., M.D., F.A.C.S., New York, is associate attending surgeon at the Post-Graduate Hospital of Columbia University, and attending surgeon at the Neurological Hospital, Welfare Island. He is Lieutenant Commander of the Naval Reserve, Medical Corps.

* * *

William C. Menninger, M.A., M.D., Topeka, Kansas, is medical director of the Menninger Psychiatric Hospital, Topeka, and instructor in mental hygiene, Washburn College. He is especially interested in research work in neurosyphilis and psychoanalysis. His hobbies are "sea scouts" and ornithology.

* * *

James Finlay Hart, M.D., New York, was graduated from Syracuse University College of Medicine in 1911. His specialty is diseases of metabolism, and he is now engaged in investigating the carbohydrate metabolism of the liver. He is director of metabolism at the Midtown Hospital, associate visiting physician at the City Hospital in charge of Metabolism First Medical Division, assistant metabolist and adjunct professor of medicine, Polyclinic Hospital. His hobby is trout fishing.

* * *

Samuel Weiss, M.D., F.A.C.P., New York, is clinical professor of gastroenterology at New York Polyclinic Medical School and Hospital and staff executive of the gastroenterological department of that institution. He is attending gastroenterologist at the Jewish Memorial and Beth David Hospitals, and consulting gastroenterologist at Long Beach Hospital. He is a Fellow of the National Society for the Advancement of Gastroenterology and editor of the Review of Gastroenterology, the official organ of that society. He has recently published a book entitled *Liver, Gallbladder, Ducts and Pancreas, Diagnosis and Treatment,* and has in process of preparation a book entitled *Biochemistry, Endocrinology and Allergy of the Gastrointestinal Tract, for Students and Practitioners.* His hobbies are motion picture and still photography.

* * *

Jarold E. Kemp, A.B., M.D., Chicago, was graduated from Johns Hopkins Medical School in 1921. He was formerly assistant professor of dermatology and syphilis at the University of Pennsylvania, and later instructor in medicine and dermatology at Johns Hopkins Medical School. He is now syphilologist with the Public Health Institute, Chicago, and is doing research work in neurosyphilis and the cultivation of spirochetes. Book collecting is his hobby.

* * *

S. Adolphus Knopf, M.D., (New York and Paris), New York, is a tuberculosis specialist of worldwide renown whose work in the prevention and treatment of tuberculosis is well known. He was the first to use controlled diaphragmatic respiration in the treatment of pulmonary tuberculosis. He also invented a window tent for the treatment of tuberculosis and a sputum cup, both of which are in general use. The limitations of space prevent more than a brief mention of his many valuable contributions to the literature of tuberculosis. He is the author of several text-books on tuberculosis in English, French and German, also a work on the history of the antituberculosis movement in the United States. His International Tuberculosis Prize Essay on *Tuberculosis as a Disease of the Masses and How to Combat It,* published in 1900, went through six editions and was translated into twenty-nine languages. In addition to his work on the prevention and treatment of tuberculosis, Dr. Knopf has taken an active interest in the birth control movement, in popular hygiene, cremation, sanitation, and other problems of sociological importance.

* * *

Edmund W. Klinefelter, B.S., M.D., York, Pa., is a graduate of the University of Pennsylvania. He is a member of the medical staff of the York Hospital, Fellow of the American Medical Association, editor of The Bulletin, the official publication of the York County Medical Society, and is at present particularly interested in a study of the bloodvessel changes of the extremities in arteriosclerotic vascular disease.

* * *

Iwan I. Ostromislensky, M.D., Ph.D., New York, has been, since 1907, professor of organic and inorganic chemistry in a school of dentistry in Moscow; assistant professor of inorganic and physical chemistry in the University of Moscow; and professor of organic chemistry in the Moscow Polytechnicum. During the World War he was professor of organic chemistry in Nijni Novgorod, and director of the chemicotherapeutical division of the Scientific Institute in Moscow. In the period of his academic activity, Dr. Ostromislensky received four prizes, two of which, amounting to $45,000, were awarded to him as a result of an international competition conducted by the Imperial Russian

(*Continued on page* 15)

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*C. H. Chetwood, M.D., and M. Mason, M.D., of the French Hospital, New York, N. Y.—Internal Urinary Antisepsis by the Dye Product PICOCHROME, April, 1935, UROLOGIC AND CUTANEOUS REVIEW.

**A. Ravich, M.D., of The Ravich Urological Institute, Brooklyn, New York—PICOCHROME, A New Urinary Antiseptic, April 3, MEDICAL RECORD.

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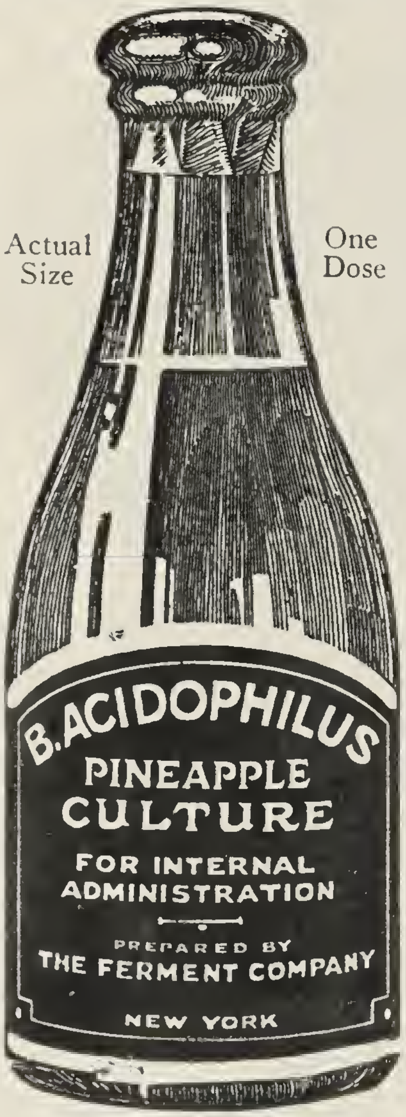

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Government in 1913 for discovering methods of transforming ethyl alcohol into practically valuable products. After the Russian Revolution of 1917 Dr. Ostromislensky was in the service of the United States Rubber Company. During this period he worked in the fields of synthetic rubber, accelerators, vulcanization, and methods for producing non-shatterable glass.

In one of his latest works, not yet made public, Dr. Ostromislensky succeeded in establishing that the substance of the silvery spots on the wings of certain species of butterflies is identical with the silvery substance of fish scales. Of his researches in biology, Dr. Ostromislensky considers his work on partial synthesis of antitoxins to be the most significant. He has published a number of important books and many valuable papers on scientific subjects.

* * *

Bernard D. Judovich, B.S., M.D., Philadelphia, is a member of the dispensary staff in the intercostal neuralgia clinic, Graduate Hospital, Philadelphia. He has been conducting a special clinic for neuralgia and neuritis at the Philadelphia General Hospital for the past three years. He is a member of the medical staff, Northern Liberties Hospital, Philadelphia. He is interested in research work on the pharmacological study of amino compound with reference to their clinical application for the relief of pain, and on the clinical investigation of the various types of neuralgia.

* * *

Frederick S. Smith, M.D., M.Sc. (Med.), Philadelphia, was graduated from the Medico-Chirurgical College in 1913 and received the degree of Master of Medical Science from the University of Pennsylvania in 1922. He is associate in proctology, Graduate School of Medicine, University of Pennsylvania. He fought and was wounded in the World War, and is now lieutenant colonel, Medical-Reserve. He is a member of county, state and national medical societies and of the American Proctologic Society. His principle hobbies are sketching and painting, but he thoroughly enjoys billiards, poker and bridge.

* * *

A. B. Grubb, M.D., Cripple Creek, Va., was graduated from the University College of Medicine, Richmond, in 1909. He is the author of a number of interesting articles on medical topics.

* * *

B. L. Knight, M.D., Cedar Rapids, Iowa, was graduated from the University of Iowa College of Medicine in 1918, and served his internship at St. Luke's Hospital, Cedar Rapids. He is a member of the Linn County Medical Society, the Iowa State Medical Society, the American Medical Association, and the American Medical Editors' and Authors' Association. He is a staff member at St. Luke's Hospital and Mercy Hospital. He is engaged in general practice, with special attention to eye, ear, nose and throat. His hobbies are golf, traveling, and fishing.

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MEDICAL RECORD

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Finance and Babies

We like statistics, when they are not prepared by statisticians. There are times, however, when we must make use of a few of the best ones. There are about seven million living inhabitants in the City of New York. The city hospitals are spending practically the same amount that they did in 1930 and handling thirty percent more cases. Three thousand new cases of scarlet fever are being reported each month. This is three times the average for the past twenty-five years. Measles are ten times as frequent as usual. More money is needed for the hospitals in order to take care of these conditions. Nothing is being done about it. The Commissioner of Health feels that at least three million dollars is necessary to put the city hospitals into shape for handling the increased number of cases. There is a shortage of diagnosticians in the field work; a shortage of nurses; hospitals are overcrowded. The City of New York is in no condition properly to take care of those who are ill. In order to make room for new patients, old patients are sent away from the hospitals before they should be. It seems as though the richest city in the world, New York, is not taking proper care of its sick. Yet the city is obliged to put aside sixteen million dollars for bankers as security for their bonds. This is pretty bad, and we could stop at this point, but there is a more important implication.

Why are so many children suffering from these contagious ailments? We feel that there is overcrowding in schools, insufficient medical inspection, and a general lowered resistance among the children due to crowded housing conditions which have been caused by countless doubling up of families, and a lack of proper and nutritious diet which has been caused by economic conditions. This is graphically shown by the decreased milk consumption. The state is doing all it can to induce people to buy more milk, even though many of them cannot afford it. The statistics also show that there has been a marked lessening in the consumption of cod-liver oil. The lessening of the consumption of these two essential articles of a child's diet gives a clear indication of what is going on and what the results will be. There is something definitely wrong in the management of our civilization when countless thousands of youngsters are allowed to sicken and perish for the want of basic foodstuffs of which there is a great surplus.

We suppose some of our readers feel quite helpless and hopeless about the situation, and that this whole matter should be left to our political and economic leaders. On the other hand, these leaders are making such a mess of it that they should be highly grateful if their attention were called to the facts, and their gratitude should know no bounds if the more intelligent members of the medical profession were to come to their rescue and tell them how things should be run.

Trade Secrets

The profession of medicine has a lot to say about a patient's secrets. Most of these secrets are about things not usually talked about in a loud tone of voice, that is to say, about sexual matters. There is a famous case reported in England of a woman who thought she was about to become an ancestor, but who was not quite sure which of her nocturnal partners was responsible for the phenomenon. This worried her a lot, as she was too timid to confide in her husband. She was so upset that she thought of suicide, but instead of that she went to the doctor to discuss the matter. The doctor told her that her own diagnosis was incorrect, that instead of a baby she was only going to have pneumonia, which was really nothing to worry about. So she stopped worrying and died. In the meanwhile the doctor had told the woman's husband the story of her alleged indiscretions.

Her brother was of a rather suspicious nature, as he probably knew his sister better than her husband did. He did not believe that pneumonia was responsible for her ceasing this life. At postmortem it was shown that the death had really been caused by something going wrong with the mechanics of her motherhood. The doctor was then called to task for having told the woman's husband about her alleged indiscretions, and when asked why, stated that he had to protect himself on account of her having threatened suicide, and he wanted to find out whether or not she had poisoned herself. The brother felt quite badly about the matter, stating that the doctor's nasty story would blast the beautiful memory in the husband's mind for the rest of his life. Of course, there is always a possibility that the woman was hysterical and her allegation that she could not determine which male had been successful was quite untrue. The judge in the case felt that the doctor had committed no breach of oath and that he would have done the same in a similar situation.

This is a typical example of what physicians are supposed to keep dark. In spite of all the rigid rules that the medical profession are supposed to follow, we feel that each physician decides for himself his interpretation of medical ethics.

In general, the Oath of Hippocrates is as valid today as when it was written, but the details of what are considered secrets have changed vastly even in the last ten years.

Metchnikoff and Sour Milk

Ninety years ago Elie Metchnikoff was born, and although his span of life extended for one year more than the Biblical allotment of three score and ten (1845-1916), like Ponce de Leon he failed to find the secret of longevity. The eminent Russian biologist reared his lasting monument on the concepts of phagocytosis, on inflammation, and on immunity in infectious diseases. But his work on the effects of lactic acid on bacteria in counteracting intestinal poisons, and so staying the aging processes, had a universal appeal in his day lasting over to the present, because of the tantalizing prospects of solving the secrets of long living.

From time immemorial, he wrote in his *Prolongation of Life* (1908), human beings have absorbed quantities of lactic microbes by consuming in the uncooked condition substances such as soured milk, kephir, sauerkraut, and salted cucumbers which have undergone lactic fermentation. There are Biblical sources for the use of soured milk, and the presumption is that to its use might be attributed the patriarchal states that the Old Testament characters attained. In Genesis (xviii, 8) it is stated that when Abraham entertained the three angels he placed before them in addition to other foods, sweet and soured milk. In his fifth book (Deuteronomy xxxii, 14) Moses enumerates soured milk of kine and goat's milk as food which Jehovah had given to his people. Many similar instances are cited by Ebstein in his *Medicine of the Old Testament.*

"Leben raib," a soured milk made from the milk of kine, buffaloes, or goats, was used in Egypt in the remotest of times. A similar product called "yohourt" is consumed in the Balkan Peninsulas. The natives of Algiers make a kind of "leben" somewhat identical with the Egyptian form. In Russia, "prostokwächa" is the name of a soured milk made by the souring of spontaneously coagulated raw milk. "Varenetz," in that country, is boiled milk soured with yeast. The chief food of many nations of tropical Africa is soured milk. Dr. Lima of Mossamedes, in West Africa, told Metchnikoff that the natives of many regions south of Angola live almost exclusively on milk. The national beverage of the Kirghises, Tartars, and Kulmucks, nomads of Asiatic Russia, is koumiss, an alcoholic preparation made from mare's milk. Kephir, from the milk of kine, is the native drink of the mountaineers of the Caucasus. The wandering Arabs of the Sahara desert live almost wholly on the milk of camels, fresh or soured. It is very easy to show the universal connection between rugged, natural living and the concentrated consumption of soured milk.

The fact, says Metchnikoff, that so many races use soured milk so copiously is in itself an excellent testimony to its desirability. The modern, "civilized" mode is to stress sweet milk. In a recent health campaign, the purpose of which was to encourage the imbibition of more milk, a catch-phrase was used to the effect that if milk were a new discovery today, it would be a world-wide headline tomorrow. Not as conscious, however, is the world at large of the immense value of soured milk, despite the efforts of Metchnikoff. Out of his work has come the contribution of Cheplin, Rettger, and Kopeloff, who have placed acidophilus milk in the therapeutic armamentarium. No longer is it believed, with Metchnikoff, that by changing the intestinal flora can life be prolonged, but it cannot fail to be recognized that there are health-saving propensities in the use of soured milk.

The Greatest Enemy of Mankind

The rat is regarded generally as the greatest enemy of mankind and it will take a considerable amount of argument to dislodge it from that position. However, in a book published recently by Dr. Hans Zinsser, the louse is placed in the first rank as the pest which disseminates disease most widely. The name of the book is *Rats, Lice and History* and their influence upon events makes one wonder whether history should not be rewritten. According to the author the true factor governing the issue of war has been, and is still, to a lesser extent, disease. Dirt in old days determined the result of war and Dr. Zinsser thinks may have been the deciding cause of the fate of Charles I.

The louse is the host of typhus, and although sanitary measures have inhibited this means of spreading disease in most countries, this insect remains a menace where filth reigns. Proper sanitary methods have abolished typhus but in may countries it is scotched, not killed. Of course, it was the discovery in 1909 by Charles Nicolle that the louse transmitted typhus from man to man which taught how to wage war against the disease successfully.

Although Dr. Zinsser holds that the louse is the chief enemy of man, ranking before the rat, all will not agree with this point of view. Moreover, the mosquito as the carrier of malaria must be given a prominent position as a disseminator of disease. It is believed by some to have been the main cause of the downfall of Greece and it still numbers its victims by the millions. Malaria is not so deadly as bubonic plague or typhus; on the other hand, while it does not kill so certainly, it invalids and disables appallingly wherever the particular species of mosquito by which infection is spread abounds. The insect pest is an ever present menace which can be effectively countered only by preventive measures.

Mark Twain and the Doctors

In this year occurs the centennial of the birth of Samuel Langhorne Clemens. Doctors cannot neglect to observe with reverence and respect this milestone of the beloved, immortal Mark Twain. Humor is medicinal; and all the other attributes of literary expression—adventure, the recapture of youth, travel, romance, the human touch—which fill the volumes of his writings, have these many years brought surcease from sorrow and care and ennui to readers the world over. Mark Twain should constitute a perennial prescription for the sick and the well.

The Medical Wisdom of Mark Twain (*Annals of Medical History,* December, 1925), was in keeping with much of his wisdom in other fields. Scattered throughout his works are many passages that reveal a mind attuned to the scientific, humane, and humorous aspects of medicine. A notable description of the ravages of bubonic plague, the Black Death, which he encountered in the Orient, is found in *Following the Equator*. Teratisms, the veritable human pathological sideshow that one meets among the beggars and fakirs of India and elsewhere, are portrayed in *Innocents Abroad*. His experiences with the régimes at various health resorts constitute a contribution to the history of the foreign spas, and as a world traveler he tells how men in different climes pursue the evanescent shadow of health and wellbeing. "Do you know?" he asks in *At the Appetite Cure,* "the tricks that the health resort doctors play?—Covert starvation. Grape-cure, bath-cure, mud-cure—it is all the same. The grape and the bath and the mud make a show and do a trifle of the work—the real work is done by surreptitious starvation." In his description of life in Berlin he gives an account of a reception tendered Virchow on his seventieth birthday. *Curing a Cold* is a gem of humor and common sense. Personal hygiene was a subject that often interested him, and he has firm convictions on smoking, alcoholism, diet, and the use of medicines. His speculations on the workings of the mind resulted in valuable comments on the action of the brain in health and disease. His autobiography is replete with accounts of the practice of medicine in the days of his youth; and he writes much of value for the medical historian, particularly in *A Majestic Literary Fossil*. Venesection, bedside practices, salivation by calomel, prescription-writing, and even a note on the medical education of women, are topics he plays with briskly and humorously. The vagaries of therapeutics, digressions on the stability of medicine, osteopathy, Christian Science, nostrums, eclecticism, and religion and medicine, evoke engaging comment.

In utilizing certain aspects of medicine for the purpose of wit, he is at his most characteristic best. "Do not undervaluate the headache," he writes in *Following the Equator*. "While it is at its sharpest it seems a bad investment; but when relief begins, the unexpired remainder is worth four dollars a minute." Medical phrase and figure, medical quotations, and philosophical comments on disease and death offer food for thought for the physician. "Each person is born to one possession which outvalues all his others—his last breath," he wrote. Not the least worthy of the products of the pen of Mark Twain are these bits of medical wit and wisdom.

The Newer Sexology

The recent death of Dr. Magnus Hirschfeld, in exile from Germany, will be lamented by all physicians interested in the psychology of sex. An international authority on sex conflicts, sex aberrations, and kindred topics, he had practised as a neurologist in Berlin since 1910, since which time it has been estimated that he was consulted by some thirty thousand patients who had marital and emotional problems of a sexual character. In 1919 he founded the Institute of Sexual Science, and had accumulated one of the most extensive libraries in the world on the subject of sex.

Hirschfeld ranks with Havelock Ellis, Krafft-Ebing, Bloch, Forel, Freud, and others as apostles of the newer sexology. These men helped to remove the superstitions, the prejudices, the taboos that enmeshed any discussion or consideration of one of the basic instincts of life. Thanks to them, physicians can, without fear of reproach and without interference by moral dicta, study when necessary the sexual problems of their patients. The newer sexology, in the hands of physicians of adequate training and understanding, has eased the mental conflicts of countless of unhappy individuals.

This is not to be unmindful of the dangers of the overpopularization of sex knowledge. One can say but little at present concerning the flood of literature on birth control, which emphasizes the socalled natural method or safe period. This newer contribution to world-wide *mores* is now one of the leading topics of parlor conversation. Only a sufficient lapse of time will tell if such publicity is warranted or not. Also, the flock of books in recent years on the precise details and *modus operandi* of "married love" may or may not be proper, depending upon whose hands they fall into.

But it can be seriously questioned whether the newer sexology would approve of the widespread circulation of lurid books on sex deviations. The reading consumption of "erotica" is enormous, despite the quasi-emphatic assertions that these works are restricted to physicians and educators. The descriptive literature of the publishers teems with such phrases as: strange sexual and amatory curiosa throughout the ages; unisexual love; obscene religions; sexual degeneration; flagellation, bestiality, and the rest of the gamut of exotic eroticism. Much of this is of anthropological interest, and for specialists only. The newer sexology which Hirschfeld helped create should be kept from turning into a two-edged sword.

Britain's First Postgraduate Medical School and Hospital

The King and Queen on May 13th opened the Postgraduate Medical School, the first in Britain, attached to the London County Council Hospital in Hammersmith, an old suburb of London. Postgraduate medical instruction, which is a feature of America and of most of the European countries, has lagged in Britain, or rather it has not been placed on an organized basis. This reproach is being removed from the largest city of the world, in which there is a wealth of material for medical research and for clinical investigation and teaching second to none.

The opening of the Hammersmith Medical School followed the extremely strenuous jubilee week and showed that their majesties were highly appreciative of the services rendered to the King by the medical profession. The cost of the new medical school and hospital building, two hundred thousand pounds, is shared by the government and the London County Council. The chairman of the governing body of the school is Sir Austen Chamberlain, the well known statesman who, in asking the King to open it, said that the school had three great tasks to perform: 1, To enable medical men in general practice to bring their knowledge up to date; 2, to provide instruction for graduates desiring to pursue special studies; 3, and to this is attached the greatest importance, to promote research and to advance medical knowledge. The speaker ended by saying that the ambition of the governing body is to make of this school a great imperial centre of British medical science, drawing students and teachers alike from all parts of the British Dominions.

In declaring the school open the King paid a heartfelt tribute to the medical profession, expressing his deep gratitude for the manner in which he and his family had benefited from the exercise of skill and care from some members of it.

What Science Will Do in the Next Twenty-five Years

According to "Scrutator" writing in the *London Sunday Times,* May 12th last, the one certain prediction for the future is that scientific adventure and discovery will persist and accelerate. Twenty-five years hence the average expectation of life will be longer; we shall retain our youth and vigor longer; diseases that now baffle will be curable; even the common cold in the head may disappear. The rich man will fly from the city to his country home situated at a long distance, as regularly as he now motors back to his rural retreat some twenty or thirty miles away. In short, space will be annihilated more or less. We shall have solved the problem of vertical ascent and descent, roofs will be flat and all big cities will be arcaded with lifts to the aeroplane platforms on top. Television will be a commonplace, and there will be a diffusion of luxury among the millions that emperors in the past might have envied.

The Royal Society

The meeting of the British Association for the Advancement of Science, commonly known as the Royal Society, meets in Norwich, Norfolk, in September next. Norwich is among the oldest cities of Britain, dates back to Saxon and Norman times and is fascinating for its well preserved relics of those bygone days. It has also been called the City of Gardens and is now becoming known as the City of Conferences. So greatly have the fame and charms of the capital of East Anglia been noised abroad that the greatest of all British conferences and one famous in all lands will be held in Norwich. The first and only previous meeting of this society in Norwich was in 1868 and it was memorable for the fact that Sir Joseph Hooker was president, and Professor Thomas Huxley delivered an address. It is estimated that from fifteen hundred to two thousand men of science will attend the meeting.

Papers and Addresses

MYOTONIA CONGENITA (THOMSEN'S DISEASE)

A Case Report[*]

WILLIAM C. MENNINGER and JAROLD E. KEMP
Topeka, Kansas, and Chicago, Illinois

Myotonia congenita is a neuromuscular disease, which presents an obscure etiology as well as indefinite pathological findings. The hereditary tendency is unmistakable in some cases, but the entire gamut of etiological factors of infection, trauma, neoplasm, and congenital deficiency falls short of explaining the condition and neither the muscles, nerves, nor central nervous system show a consistent structural alteration. The disease must still be considered a rarity, though undoubtedly many cases in a mild form exist which never even come to the physician, or are wrongly diagnosed when they do.

Toomey (1), in 1916, stated that up to that date four hundred cases were listed in the *Index Catalogue of the Library of the Surgeon General's Office* and the *Index Medicus.* However, it is quite unlikely that all of the cases so listed conform to the typical picture of myotonia congenita. Jelliffe and Ziegler (2), in a recent case report, carefully and critically reviewed the American literature, beginning with Jacoby's (3) original discussion. Out of the forty-five cases reported from this country, Jelliffe and Ziegler thought that five were erroneously diagnosed and six were atypical of the disease.

No successful therapy for the condition has been reported, although many substances have been tried. Some very recent work in two reported cases by different French investigators, suggest that the disease may be a calcium metabolic disorder. In the report of Ribadeau-Dumas et al (4), the baby was helped with irradiated sterol and in the case reported by Urechia et al (5), the low blood calcium was elevated by giving fifty units of Collip's parathyroid extract daily for seven days.

The case here reported is of interest from three points of view: 1, it apparently falls into the "acquired" group as separated from those with hereditary background for the disease, as delineated by Jacoby (6) and again by Down (7); 2, the pseudomuscular hypertrophy is extremely pronounced; and 3, there has been little or no change in his condition for eight years, despite various therapeutic attempts.

Case Report

Problem.—A white male, aged twenty-three, who for a period of approximately ten years had had cramping of his muscles, provoked by exercise, but somewhat relieved by "limbering them up".

Family history.—The patient is an only child, apparently with a normal birth. His mother was twenty-two years of age at his birth. She had no other pregnancies as far as the patient knew. She is well and healthy, now forty-four years of age. The father was divorced from the mother, was remarried and had two children by his second wife, a boy and a girl, both well. The father is well, and neither parent has had any trouble or complaint similar to that of the patient. The patient is fairly well acquainted with all his uncles and aunts, and there was no history of the disease in any of these family lines.

(It is quite possible that the family history is incorrect, since the disease may be so mild and so relatively slightly incapacitating, that the patient may not know of its existence in collateral lines in the family. However, in their review of the American cases reported, Jelliffe and Ziegler (2) noted that eight of the cases did not give any hereditary history. These were reported by the following authors: Moyer (8), Hughes (9), Mills (10), Carncross (11), Taylor (12), Frink (13), Jacoby (3), and Down (7).

Past history.—Except for his present complaints, the patient had always been well and healthy. In his childhood, he had been quite active in athletics, especially running and baseball. He graduated from high school, did fairly well scholastically, and since that time had attempted to do odd jobs as a porter, laborer, etc. His physical condition explains in part his inability to hold a job, although this has been less important than the fact that none of the jobs was permanent and he blames the present economic condition for failure to find a good one.

He had diphtheria at seven years of age and while hunting treatment for his present illness, had his tonsils removed at sixteen. He has had no other illnesses, or operations, and no severe trauma.

Present illness.—The difficulty came on gradually about his twelfth year. There was no particular incident in his life at this time, no illness or injury. Over a period of several months he became aware of his inability voluntarily to relax his muscles quickly, particularly in the arms and hands. Because he felt well, and appeared healthy, his family showed no concern about him. His tonsils were removed as a therapeutic endeavor at age sixteen. His condition was apparently first diagnosed as myotonia congenita at the age of seventeen, at Billings Memorial Hospital, where he remained for approximately three months for special dietary treatment, a lumbar puncture, repeated metabolic studies and a pectoral muscle biopsy. At the age of nineteen he took a series of electrical treatments, and he has repeatedly taken massage treatments.

He has never been entirely incapacitated and his disease has remained stationary since about his fourteenth year. It has been entirely unresponsive to any treatment. He has noted for several years excessive sweating and increased thirst. His hands and feet often appear bluish and feel cold. With a little exercise, he can overcome the muscle cramps for a little while, so that he has no difficulty in ordinary walking, dancing, or driving a car. On the other hand, if he attempts to play ball or climb stairs or run, he has to "limber up" a little before he can perform. He thinks that after this preliminary exercise, he is as quick and agile as ever. He has never had pain or paresthesia, nor has he been febrile. He notices that if he rests a day or two in bed, he feels more limber, and under excitement his stiffness is much less noticeable. Cold increases the difficulty. His strength has never been impaired, and he believes has perhaps been even better. He takes no active exercise but has the very pronounced muscular development shown in the photograph.

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[*] From the Public Health Institute, Chicago.

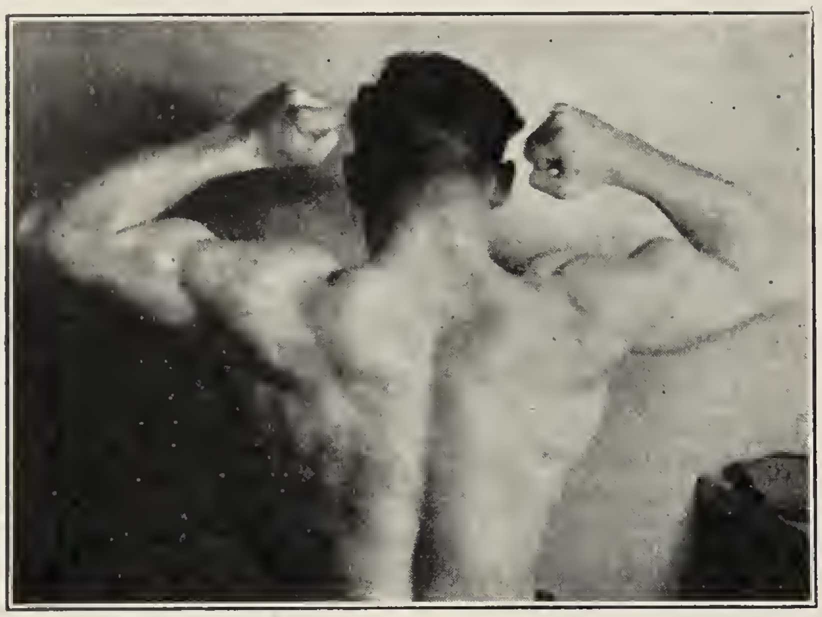

Fig. 1.—Showing muscular development in arms and shoulders of patient in the case reported.

Physical examination.—His weight was 182 pounds, height 5 ft. 9 in. He appears extremely muscular, particularly in the arms and shoulder girdle. He is in no distress, appears well, and is mentally alert. His skin is moist, his hands and feet cold, and over the anterior surface of the tibia there is a purplish spotty discoloration. He sweats profusely during the examination.

Head: Normally developed in size and shape. Abundant dark hair. There is no abnormality about the eyes, ears, or nose. The teeth are well formed but with poor hygiene. There are a few lymphoid patches around the faucial pillars but the tonsils are absent.

Neck: Short, stocky, thick, and the muscles stand out markedly.

Chest: A large chest, but not emphysematous, symmetrical, and with equal expansion on both sides. The lungs are clear and resonant. The heart is regular, without murmurs or abnormal sounds. The apex is in the fifth interspace, within the nipple line, and there is no enlargement at the base.

Abdomen: Soft, no tenderness nor rigidity, and no masses. The liver and spleen are not palpated.

Genitals: Normally developed; masculine distribution of hair.

Extremities: The muscular hypertrophy and vasomotor disturbances have been mentioned; otherwise normal.

Neurological examination.—The cranial nerves are all normal. The pupils are equal, regular, and respond normally to light and accommodation. There is a slight pallor to the right optic disc in contrast to the left, although the patient believes his vision in the left eye is not quite as good as the right. Visual acuity is normal. No limitation of the visual fields and no oculomotor difficulty. The facial muscles seem entirely free from the myotonic reactions, nor does the tongue seem to be involved, either objectively or subjectively.

Motor: The characteristic picture is a muscular contraction on any sort of stimulation, either by voluntary contraction, or by tapping with the percussion hammer. He contracts a set of muscles, for example those of the hand, and then cannot relax the muscles except slowly and with much effort. He is unable to perform rapid alternating movements until after he has made repeated attempts. There is no paresis, no athetoid or choreiform movements, and no loss of voluntary control.

Reflexes: The superficial reflexes are in general diminished: the corneal is normal, the pharyngeal practically absent, the abdominals equal but slight, and the cremasterics not obtained. The Babinski reaction is absent. The deep reflexes are slightly diminished, but all are present and bilaterally equal.

Sensory: There are no sensory changes present. There is no loss of position sense or deep pressure. Vibratory sense is normal.

Psychological examination.—The patient is a friendly, likable, cooperative, alert young man. He thinks he has shown no personality change during the course of his illness. He seems somewhat immature in his reactions, and although he has been informed as to the nature of his illness and its prognosis, shown no concern, nor anxiety. He impresses one as a somewhat irresponsible, carefree youth. The possible relationship of his illness and his emotional patterns is obscure. He does not get along well with, nor care for, his father, whom he sees rarely though living in the same community. He is mildly attached to his mother, who has also remarried. He keeps company with a number of girls, explaining that because of his muscular build, "they go for me strong". He mentions that in time of excitement, he does not notice his difficulty, but apparently he has at most only mild mood fluctuations, in spite of a cyclothymic makeup.

Our patient is characteristically reticent about his illness. He has never told his father about it, and in fact has kept it a secret even among his close friends. Jendrassik (14) mentions that these patients "seek to conceal their infirmity by all sorts of devices". Thomsen (15), in his original description of his own illness and as seen in his four sons, classed it with the psychoses. He wrote, "There is an active psychic factor involved, namely the fear of ridicule. As soon as the feeling arrives and those about will discern and observe the disability, the symptoms become aggravated in the highest degree". Subsequent observations do not bear out the illness as being closely related to the psychoses. Among the six children of the second generation in the remarkable family studied by Rosett (16) three were afflicted with the disease and the other three had pronounced mental difficulties though free of the muscle spasms.

Laboratory findings.—As in previously reported cases all the routine laboratory procedures (blood count, urinalysis, blood Wassermann and Kahn tests, spinal fluid examination) were normal in this case.

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WHAT THE PHYSICIAN SHOULD KNOW ABOUT TOBACCO*

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New York

(*Concluded from page* 509)

Coronary arteriosclerosis and angina pectoris.—In laboratory animals full doses of nicotine produce constriction of the coronaries, but in the isolated rabbit heart, Laubry, Walser and Deglaude have demonstrated that, while large doses cause coronary constriction, small doses result in dilatation with increased coronary blood flow. From the amount of nicotine furnished by as much as twenty cigarettes a day, they believe that dilatation of the coronaries is the only effect obtainable.

In 1,075 men with coronary sclerosis Pawinski found excessive smoking in 41.9 percent, while in 2,081 patients with arteriosclerosis not involving the coronaries the heavy smokers constituted only 23.3 percent. But in 150 patients with coronary occlusion and in 150 healthy persons of the same age and sex ratio Blumer found almost identically the same proportions, that is, thirty percent of excessive smokers and thirty-six percent of mild or moderate smokers.

In those with angina pectoris, Gallavardin found sixty-nine percent of smokers among two hundred patients, but only 18.5 percent were immoderate smokers. In sixty fatal angina cases in males Johnson found seventy percent of smokers, in a locality where 81.8 percent of the males smoked. In 750 angina patients, 566 men and 184 women, White and Sharber reported 53.9 percent of smokers, a smaller proportion than in 750 controls of the same age and sex ratio, of whom 62.8 percent smoked. In most instances no special frequency of smoking or of heavy smoking has been recorded among coronary artery patients.

That smoking may precipitate angina attacks in some patients is a not uncommon clinical experience. It is possible that in these susceptibles epinephrine liberated from the suprarenals by nicotine brings on the attacks. In five such patients Ralli and Oppenheimer demonstrated that promptly on smoking there was peripheral vasoconstriction, quickly followed by the paroxysm. The pain disappeared with vasodilatation. They assumed that the coronary arteries responded in the same manner as the peripheral. I have been disposed to forbid the use of tobacco in all angina cases, but Wright and Sharber find it the cause of paroxysms in only an occasional patient and therefore allowable for the others, and Harlow Brooks permits it for those, "a not inconsiderable number," who find that it gives relief from the paroxysms. In other words, the decision as to its use depends on the patient's own experience.

With nicotine-free tobacco extracts Harkavy found cutaneous sensitization in four percent of twenty-six with general arteriosclerosis and in nine percent of hospital patients with various diseases, while in those with disease of the coronary arteries and angina pectoris the reactions appeared in thirty-six percent. Thus it is possible that tobacco may be a contributing factor, and possibly an etiological factor, in disease of the coronary arteries, not only through its nicotine action, but also on account of a specific sensitization to tobacco.

Thromboangiitis obliterans.—This serious disease of the limbs is almost confined to tobacco users, and indeed almost confined to cigarette inhalers. In 350 patients at the Mayo Clinic, Barker ascertained that 1.4 percent were nonusers, 0.3 percent were chewers,

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6.8 percent smoked cigars or pipe, and the remainder, 91.5 percent, used cigarettes. Heavy smoking was the habit in sixty-one percent, while of the controls it was found in only twenty-six percent. It is striking that though many cigar smokers consume ten or twelve cigars a day, the equivalent in tobacco of fifty or sixty cigarettes or more, they furnish an exceedingly small proportion of the cases of thromboangiitis.

With skin temperature tests in two patients, Maddock and Coller found that the already deficient circulation in the feet was still further reduced on smoking a single cigarette. Sulzberger obtained cutaneous reactions to nicotine-free tobacco extracts in seventy-eight percent of twenty-four cases and Harkavy in eighty-seven percent of eighty-seven cases, findings that suggest that elements of tobacco other than nicotine play an important rôle in this disease.

All observers agree that the severity of the disease tends to be greatest in the heavy users, that abstention from tobacco is favorable, and that renewed symptoms frequently follow the resumption of tobacco. Yet of those who have the disease some are nonusers, and of the tobacco users almost all are cigarette inhalers; and Barker states that in spite of continuous smoking the symptoms may disappear to recur only at long intervals. Thus, while we may agree that tobacco is an important contributory cause in this disease, we cannot charge it with being the sole or even a necessary factor in its production.

Raynaud's disease and vasomotor neuroses.—From three cigarettes in four such patients Barker found a significant drop in the temperature of both fingers and toes, an indication of vasoconstriction.

Bloodpressure.—That the bloodpressure may show a rise with each smoke, even in habitual smokers, has been ascertained by a number of experimenters. For example, in eleven young men accustomed to from twelve to twenty cigarettes a day, observed by Maddock and Coller, a single cigarette resulted in a systolic increase of eight to twenty mm. and a diastolic increase of zero to twenty-five mm., with a return to the previous level in from five to thirty minutes. A second cigarette produced the same effect. Nicotine tartrate intravenously in theoretically corresponding doses acted in a similar manner.

On the other hand, not infrequently there has been no change or a drop in the bloodpressure. And, to quote Dixon, "In some persons the initial rise in pressure is followed by a fall, so sudden as to cause the familiar symptoms of collapse." In 150 nonsmokers Johnson found practically the same average systolic and diastolic pressures as in 150 smokers. In fifty-eight cigar smoking patients in middle and advanced life, with arteriosclerosis and high arterial tension, Thomson and Sheldon found that one cigar raised the pressure in thirty-five percent, lowered it in forty-five percent, and produced no change in twenty percent, the results being variable from day to day in the same patient. They noted that many were distinctly benefited by the soothing influence of their accustomed smoke.

Among 1,021 persons with arterial hypertension, Fisk found thirty-one percent of heavy smokers, a slightly lower ratio than among 13,335 with normal tension, of whom 33.1 percent smoked to excess. The great authority, Allbutt, found tobacco not a cause of high bloodpressure. Lauder Brunton and also Rolleston have stated that immoderate smokers tend to have a low pressure, and Kuhn found this the case in heavy-smoking students who did not go in for athletics. But the general experience does not support this idea, except in a few cases.

Thus in some smokers tobacco results in a rise in bloodpressure and in others not, but any rise produced is not as a rule more than may accompany any ordinary activity. However, to be of use as an indicator of circulatory efficiency, the bloodpressure and also the pulse rate must be taken, not only in the usual horizontal posture, but with the subject standing up, and also after definite exercises. With such tests, after tobacco, Fischer and Berry, Parkinson and Koefod, Diehl and others have repeatedly found an unchanged or raised bloodpressure in the horizontal position, while in the erect position or after mild exercise there was a significant failure of the circulatory system to respond to the added work.

The blood.—Tobacco has been charged with producing anemia, but in the red cell count and the hemoglobin Walters could find no significant difference between smokers and nonsmokers.

Summary of Effects on the Circulation

At the time of smoking there is a lowered cardiac efficiency, with diminished power of the heart to stand strain and in some cases there are premature beats. In the young adult recovery from this state is prompt. The continued use of tobacco sometimes results in a chronically lowered cardiac efficiency, in over-rapid pulse, in palpitation, in subjective discomfort about the heart, in disturbances of rhythm, or in outright tobacco heart. On abstention these may disappear in a short time. There is some evidence, though not wholly adequate, that the long use of tobacco may contribute to the development of organic heart disease in the later years of life.

Vasoconstriction is a frequent accompaniment of a smoke, and this suggests that in the course of time organic arterial changes might result. But tobacco has not been shown to be a cause or even a contributing factor in general arteriosclerosis or high bloodpressure, and in these conditions need not be forbidden. In coronary sclerosis and angina pectoris evidence of an etiological relationship is also lacking, unless a high proportion of cutaneous reactions to nicotine-free tobacco extract should prove significant. In certain of the patients with angina pectoris it may bring on the paroxysms, in others it checks these. The rule might be that in any degree of coronary artery disease the use of tobacco should be forbidden; but an exception may be made for those patients whose accustomed smoke, through its soothing influence, proves by experience to be beneficial. But when tobacco is allowed, one would specify moderation.

In vasospastic conditions, such as Raynaud's disease and intermittent claudication, tobacco may be a contributing factor and should be forbidden. In thromboangiitis obliterans, tobacco, especially in the form of cigarettes, is an important contributing factor and shows a marked preponderance of specific sensitiveness, therefore should be forbidden.

Summary of Other Effects

There are certain indefinite symptoms that are attributed to tobacco because they disappear with abstinence and reappear some weeks or months after tobacco is resumed. Such are irregular neuralgias, vague gastrointestinal discomfort, headache, insomnia, constipation, palpitation, etc.

But tobacco may result in more definite effects. The skin may show eczema. In the digestive tract, besides the coated tongue and the disagreeable taste, it may produce hyperacidity or pylorospasm, imitate an ulcer, make an existing ulcer worse or induce colonic hyperirritability. In the respiratory tract it may be productive of pharyngitis, laryngitis, bronchitis or bronchial asthma. Effects on the nervous system may show in irritability, restlessness, impaired memory, mental depression, insomnia, headache and tremor. It renders migraine worse. In some cases of hyperthyroidism it raises the basal metabolism. There may be deafness from catarrh, or vertigo from an effect on the inner ear. The eyes may show floating specks, muscular weakness and amblyopia.

This list of possible adverse effects sounds ominous, yet it is apparent that only a small proportion of tobacco users suffer; otherwise, physicians would be kept overbusy with tobacco sicknesses. In any case we must not charge tobacco with causing a sickness merely because the patient uses it.

There is no satisfactory evidence that the reproductive system is affected adversely, or that growth in the young is retarded. There is slight suggestive evidence that excessive smoking, with inhaling, by nursing mothers may lessen the quantity of milk and may hurt the infant; and there is some evidence that inhaling by prospective mothers may harm the unborn child. In pulmonary tuberculosis it is not deemed harmful to the lungs. The danger of its producing cancer of lips, tongue, mouth, throat, lungs and esophagus is present, but is probably not marked.

The Tobacco Habit

As a habit drug, tobacco has peculiarities, namely: 1. The most prized tobaccos are not those with the highest percentages of nicotine. 2. The gratification does not come wholly from a physiological effect, as indicated by the lack of satisfaction from smoking in the dark or from using the tobacco in some unaccustomed way, as in a pipe instead of cigarettes, or as snuff instead of smoking. 3. When the use of tobacco is suddenly stopped there is no great physiological reaction, the withdrawal symptoms being merely those associated with breaking a confirmed habit. In this it differs from morphine, heroin, cocaine, hashish, marihuana and other vicious habit drugs. 4. Its poisonous effects are not due to an excess of the narcotic action, but to other actions that early dominate the picture.

In habitués who smoke twenty or thirty cigarettes a day, Wright and Moffatt, Barker and others have noted that the toxic actions of nicotine might follow the rapid smoking of even a single cigarette. Thus tolerance is limited and heavy smokers probably keep close to a state of poisoning; but each such person knows from experience how much and how rapidly he can smoke without beginning symptoms, and keeps free from these by not exceeding his limit in a given time. A cigarette smoker may feel ill from smoking a cigar, because he is not accustomed to smoking so much tobacco without an interval. The best general antidote or preventive of nicotine poisoning is coffee or caffeine, and for the nausea and vomiting, atropine.

Tobacco produces with certainty no known pathological lesions, other than those from local irritation, and most, if not all, of its alleged bad effects are removable in a short time by abstention. Possibly, however, by its insidious action through long years, it may result in organic disease. We think that for a number of users it is a habit that handicaps, but this cannot be assumed for all habitués. We deplore excessive smoking, that is, continuously near the limit of tolerance. Sooner or later this overindulgence is prone to exact a heavy price. We deplore the almost universal adoption of the cigarette habit by the young, with its associated inhaling. Inhaling increases the area of absorption, and the lungs pass the poisons immediately to the left heart, the coronary arteries and the general circulation. That many of the experimenters remark on the more pronounced reactions of all kinds observed after cigarette inhaling, and their greater promptness of onset, must give us thought about this exceedingly prevalent habit. The tremendous use of the cigarette is such a recent development that we must wait many years before we can assess the ultimate effects of long years of inhaling.

Why Do We Use Tobacco?

With so many known possible harmful effects, it might be asked, why should anyone indulge in it? Yet we find that more than half the adults of our country are users of tobacco. They include many intellectuals, many of great attainments, many of the successful in every kind of occupation. A considerable number of those who have reached advanced age have smoked most of their lives. It would seem, therefore, unthinkable that the tobacco habit is universally harmful.

We humans take kindly to various habit indulgences, as sweets, chewing gum, alcohol and tobacco. May it not be that tobacco readily becomes a habit because it is so mild a narcotic, and yet relaxes and rests the mentally and physically tired, quiets the nervous, and gives relief from the tense and repressed conditions in which we live; or because it is company in loneliness; or because it creates peace and contentment, as after the evening meal or beside the camp fire after the night has fallen? Moreover, in creative work, may not the higher flights of imagination be promoted by the restfulness and reflective attitude that are contributed to by the rhythmic puffing and the curling smoke? Perhaps many of us are benefited by such a mild degree of narcosis, when it can be obtained in such an agreeable way. In any event, smoking is a pleasurable social habit that, unlike alcohol, does not threaten to wreck the party, or to render its devotee temporarily brainless, helpless or dangerous.

33 East Sixty-Eighth Street.

MORPHINISM*

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Morphine addicts are persons whose organism has acquired a physiological need for morphine. Without a definite daily dose of morphine, they are doomed to severe suffering. Their craving for morphine is more compelling than all other cravings—hunger, thirst, rest or sleep.

A normal person using morphine for relief of pain can always stop the injections at will without feeling any deprivation. The morphine addict, on the contrary, undergoes, on the withdrawal of morphine, very complex symptoms of intoxication. They cause unbearable suffering, and sometimes end in speedy death.

Withdrawal Symptoms

At first, the patient experiences progressively increasing weakness, restlessness, anxiety, and finally apprehension of some impending disaster more terrible than death itself. Soon he develops spasmodic cough and ceaseless yawning. After some time has passed, he suddenly starts to sneeze, sometimes twenty to thirty times without interruption. Simultaneously a copious secretion of tears, saliva and nasal fluid appears. His limbs become cold, although the temperature of the body (under the tongue) may rise even to 100° F. The skin in places develops gooseflesh, and is periodically covered by copious, sticky perspiration, which, however, usually dries quickly. The gradually increasing nausea suddenly ends in bilious vomiting. Simultaneously, tenesmus and tormenting diarrhea are observed, frequently with involuntary defecation and urination.

The diarrhea and vomiting are accompanied by intestinal cramps, tremor of the entire body, twitching of muscles, and unbearable shooting pains in bones and joints. In this condition, the pulse rate varies widely, while bloodpressure falls sharply. Sometimes brachycardia reaches a degree bordering on collapse. It is interesting to note that the total number of white blood cells rises as during a severe infection and may reach twenty thousand.

Later, the patient may develop repeated fainting spells or loss of consciousness, with bloody froth at the mouth, which cannot be distinguished from epileptic fits. Levinstein, Fidler, and Burkart likewise observed general convulsions, thread-like pulse, collapse and finally death.

The sufferings of the morphine addict on the withdrawal of morphine at first increase from hour to hour, but in their acute form they last only from seventy-two to ninety-six hours. During this time the patient is in a state of mental and physical agony, sometimes on the borderline of death. If, however, at the height of the sufferings an ample dose of morphine is administered to the patient, all the terrors of his condition, all the symptoms of the disease will disappear completely. The patient "recovers" and within half an hour is in an apparently normal condition.

Morphine recruits its victims from all classes of society, irrespective of age, sex or profession. Nothing can insure one from this disease. The race or nationality of the individual plays no part.

Usually, morphine addicts not only do not receive sympathy or commiseration, but on the contrary meet with suspicion and hostility. Even a syphilitic would suffer less social ostracism.

It is only natural that morphine addicts should carefully conceal their "vice" from the eyes of society. Therefore, attempts at an exhaustive registration of the addicts have never been successful.

Characteristics of Morphinism

At present, the following facts may be considered as established:

1. Every normal individual who ingests morphine daily becomes a morphine addict within twenty to twenty-five days on the average. What change takes place in the human organism then? Why can daily injections of morphine be safely interrupted on the tenth, fifteenth or even nineteenth day, while an interruption on the twenty-fifth day causes severe suffering?

2. The organism of the morphine addict tolerates astonishingly large doses of morphine without noticeable symptoms of acute intoxication. Some of the patients take daily from fifteen to twenty times doses lethal to a normal person. The quantity of morphine which is absorbed by a single addict within one year could kill from five to seven thousand healthy individuals.

Why do these patients not die from intoxication? The theory of Faust, which assumed that morphine is decomposed and eliminated relatively more quickly from the organism of the morphine addict, was refuted by direct observation. To speak of some mystical "habit" of the addicts is not to explain the phenomenon. One cannot get used to falling every day from the fifteenth story of a skyscraper and not get killed.

3. The organism of the individual who has survived all the violent symptoms of morphine withdrawal and has been apparently "cured" of the need for morphine actually differs from that of normal individuals even after several years. A subcutaneous injection or ingestion by mouth of a quite insignificant dose of morphine (a mere 0.0001 gm.) may be sufficient to produce a relapse of the disease. He becomes an addict again even if he does not know that morphine has been administered to him. Why?

4. In any given period of the disease the addict needs a definite minimum dose of morphine. This dose can vary only within a minute fraction of a gram. A small diminution of this dose, or the omission of one of the usual injections, is sufficient to upset the balance of the patient. The resulting symptoms of morphine hunger will be felt very quickly.

5. The minimum dose of morphine needed by the addict every day may be replaced, in turn, by a quite definite quantity of some derivative or analogue of morphine. In particu'ar, one unit of mor-

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*Read in substance before the Russian Medical Society, November 28, 1934.

phine by weight is equivalent, for the addict, to eight units of codeine or one-third of a unit of heroine.

6. The minimum dose of morphine which allows the patient to forget all deprivations ceases in time to satisfy him. This changing condition inevitably compels him gradually to increase his daily dose of morphine.

I have intentionally given a brief description of the facts characteristic of morphinism. All these facts prove quite perplexing in attempting to understand the nature and treatment of this condition. The question "why" arises at every step.

A priori, it would seem that the quicker the patient ceases to saturate his organism with the poison, the more readily he should return to his normal condition. Experience, however, contradicts human logic. Nothing is more dangerous to an addict than a sudden discontinuance of morphine ingestion. Why does an addict suffer from symptoms of intoxication only after he has ceased taking the poison? Does this clearly established fact not seem at first glance a paradox or even nonsense?

The acute and ominous symptoms of intoxication, appearing rapidly after the withdrawal of the poison, sometimes have a fatal outcome. Why? Is it only because the patient has ceased to ingest a highly poisonous substance?

At the height of the disease, morphine produces in addicts no pleasant excitement and no blissful repose. Yet in normal individuals this narcotic effect occurs almost without exception. Why?

Having digested all these facts, one cannot help becoming reconciled to the truth, no matter how paradoxical it may seem to be. We should expect the intensity of suffering during morphine withdrawal to depend only on the quantity of morphine absorbed before withdrawal. Experience, however, does not coincide with even this natural expectation. It appears that the degree of "punishment" which inevitably awaits a patient when he renounces morphine is determined, in the first instance, not by the quantity of morphine that has been absorbed, but by the length of time, i.e., the duration of the addiction.

The reader can see that the phenomenon of morphinism seems from the outside to be a chaotic mixture of strange, and apparently illogical, facts, seeming nonsense, and various paradoxes. Yet the gist of the phenomenon can be expressed, as has been already shown above (paragraphs 3, 4, 5 and 6), in exact numbers.

Among the various scientific theories suggested up to the present time in explanation of morphinism, the theory of the American scientist, Ernest Bishop, has excited the greatest interest and enjoyed the longest recognition. At one time it was considered universally accepted.

Bishop's Theory of Morphinism

Under the action of morphine, the organism of man and animals produces, according to Bishop, a special substance, an antidote. In itself, this substance—let us designate it, for the sake of brevity, by x—possesses in free state the properties of a strong poison. The severe symptoms of morphine withdrawal are due, according to Bishop, to the action of free x. However, in the system of addicts x reacts with morphine, becoming a quite harmless substance. In other words, x renders morphine harmless, and, *vice versa,* is itself rendered harmless by morphine. On encountering each other, these evil substances lose their poisonous properties. They behave like the cats, of which, after their fight, nothing could be found but two tails.

Bishop's theory easily took care of all the "paradoxes" described above. It readily and simply explained all the facts of this field except one, namely, the fact described in paragraph 3 above. The inevitability of a relapse of the disease under certain conditions was not explained by Bishop's theory; as a matter of fact, it plainly contradicted it. However, this interesting theory also failed when subjected to a crucial test. Experimentation refuted it. All attempts at isolating the substance have failed. Pellini proved that the blood of morphinized dogs contains no poison at the time of withdrawal. Consequently, Bishop's x does not exist. The observations of Pellini have been confirmed by a number of other investigators.

Anaphylactic Theory of Morphinism

The theory of morphine addiction developed by me has led to a number of interesting results. Quite unexpectedly, it widened the scope of the work and opened possibilities which cannot fail to excite great interest.

In the present article I should like to explain first the physiological mechanism by which a normal man is transformed into a morphine addict, i.e., to go to the root of the phenomenon and explain its seeming paradoxes and absurdities. The theory offered by me is designated as the "anaphylactic theory of morphinism." For the benefit of those readers who may not be conversant with the science of biology as applied to animal studies, and for whom an explanation of the nature and phenomena of anaphylactic shock may be required, I shall describe briefly the properties of antigens and their antibodies.

Antigens are substances which, when introduced into the living organism, cause the appearance of peculiar bodies known as antibodies. Every antigen always produces a particular kind of antibody, which is clearly different from all others.

Antibodies, as a rule, appear only twelve to twenty days after the first administration of the antigen. In themselves, they are quite harmless to men and animals. Animals behave also toward antigens quite indifferently at first. Within twelve to twenty days they assimilate enormous quantities of these substances without harm. If the same antigen, however, is introduced into the animal's system after the corresponding antibody has formed, a chemical interreaction results. This reaction proceeds very rapidly and violently and the doomed animal suffers, often fatally, from anaphylactic shock.

Even in lower animals, guineapigs for instance, one can observe, by the expression of the eyes and the twitchings of the muscles, how a sudden restlessness grows quickly into anxiety and fear. In the end, the little animal leaps and rushes to and fro, seized by a panicky terror. Its hair bristles up and its entire body is covered with copious perspiration. It sneezes and coughs simultaneously, and excretes urine and feces frequently. Completely exhausted, it finally falls to its side and perishes with wide-open mouth and protruding eyes, respiration ceasing amid a terrible picture of general convulsions and tremors of the entire body.

This is the course of anaphylactic shock in guineapigs.[2]

According to the observations of L. Grete, Mokishi Matsuda, and other biologists, morphine possesses very interesting antishock properties. This means that a timely injection of a sufficient dose of morphine prevents otherwise inevitable anaphylactic shock and death of the animal. Experiments have shown that the antishock properties of morphine do not depend on the nature and composition of the antigen.

Every antigen appearing in the blood of the animal disappears from it rather quickly, while the corresponding antibody is retained in the organism and even produced by it, for a number of years. This means that an antigen first injected today will produce anaphylactic shock even if the second injection is made after a number of years.

Chemically, antigens belong to the class of proteins or lipoids. At the present time, it can be considered as firmly established that every protein, irrespective of its origin, acquires antigenic properties if it appears in the blood of the animal for the first time. In particular, aqueous and alcoholic extracts of a rabbit's brain behave as antigens in the organisms of other rabbits.

Anaphylactic Theory of Morphinism

The entire theory can be formulated in a single sentence: After sufficiently prolonged daily administration of morphine, there appears in the blood of men and animals a substance possessing antigen properties. Briefly, *morphine generates antigen.*

This fundamental conclusion can be arrived at by many different lines of thought. I shall discuss three of them:

1. Morphine addicts tolerate large multiples of doses of morphine which are lethal to normal individuals. Probably the human organism produces, when morphine is abused, an antidote, which neutralizes morphine. Let us designate this antidote, for the sake of brevity, by y. Only on the withdrawal of morphine do addicts undergo acute intoxication. Apparently, the antidote which neutralizes morphine possesses itself, in free state, the properties of a strong poison.

Pellini showed that in the period of morphine withdrawal the blood of strongly morphinized dogs contains no substance which would affect normal dogs as a poison. Where does the substance go? Why could this substance not be found by Pellini and other scientists who repeated his experiments? The answer is very simple: y does not disappear; being quite harmless for normal individuals, it functions as a strong poison only in the system of addicts.

Can there exist, however, substances that are quite harmless to one group of animals, but strongly poisonous to animals of another group of the same species? Are such substances known to science? Yes, such substances are known. They have been thoroughly studied, and are called antigens.

We have already arrived at the fundamental principle of the anaphylactic theory: Abuse of morphine produces in the blood of men a substance possessing antigen properties only harmful when combined with antibodies. We have come to this conclusion by means of deduction, i.e., the simplest explanation of a long chain of facts. All roads lead to Rome. The same conclusion will be inevitably reached also by the logic of a physiologist based exclusively on an analysis of facts.

2. On first acquaintance with morphine the normal individual experiences, as a rule, a feeling of pleasant excitement or blissful repose. This narcotic effect should be considered, of course, as the result of a chemical reaction between morphine and some substance of nerve cells. It develops, however, with a rapidity which is characteristic only for the so-called ionic reactions. Consequently, the given reaction results in a protein or lipoid salt of morphine; morphine can yield no other ionic reaction.

I have shown that the protein salts of morphine dissolve in water. Therefore, the morphine salt which is formed in the organism will inevitably penetrate, in greater or lesser quantity, into the blood stream. Weak solutions of protein salts of morphine are easily hydrolyzed. The morphine which is liberated by this process is oxidized and quickly eliminated from the system. However, in the blood of the individual there remains a protein which must undoubtedly possess all the typical properties of antigens.

We have come again to the fundamental principle of the anaphylactic theory of morphinism. However, this time we used no hypothesis. We have come to it by a strictly objective method, with the aid of pure logic and analysis of the facts.

3. A detailed analysis of the literature[3] must inevitably lead to the following conclusions:

The complicated and characteristic complex of the symptoms which are experienced by an addict on the withdrawal of morphine, and sometimes end in his death, is identical in all respects with the symptoms of anaphylactic shock in animals. A complete identity of the clinical picture of the disease, not only in the character and intensity of the symptoms but also in the sequence of these symptoms, is apparent.

Consequently, the condition of a human being during morphine withdrawal is identical with the condition of animals during anaphylactic shock. Anaphylactic shock occurs in animals as a consequence of the chemical reaction between an antigen and its antibody. Consequently, the organism of addicts contains a substance possessing the properties of an antigen, reacting on its preformed antibody.

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[2] Anaphylaxis is the direct opposite of prophylaxis. By producing special antibodies against antigens, the living organism creates a great danger for itself, for these antibodies act anaphylactically: Instead of protecting the given organism, they transform an originally harmless antigen into a strong poison. That is the reason why the shock produced by the meeting of an antigen with its antibody is called anaphylactic shock.

[3] Particularly the works of Friedberger and Mieta, Besredka, and Zinsser on one hand (in the field of anaphylaxis), and the works of Levinstein, Fidler, Grossman, and Burkhart (in the field of morphinism) on the other.

By the third method, as a result of a detailed study of the clinical picture of the disease, we have come again to the fundamental principle of the anaphylactic theory.

Notice now how this theory easily explains known facts. In the field of morphinism there are no longer any paradoxes or absurdities. The chaos of confusing facts previously described falls into a single harmonious system. All these facts are not only easily explainable, but can be predicted in advance.

Without any difficulty, the anaphylactic theory completely dissipates the "perplexity" of biologists of which I spoke in a previous article. It answers all the questions of the chemist, the biologist, the physiologist and the physician.

Let us imagine ourselves in the position of a European physician of the beginning of the nineteenth century. The phenomenon of morphinism still is unknown to us. We have seen no addicts, and have had no opportunity to read anything about them in literature. If, however, we agree with the conclusions of the anaphylactic theory, we can undoubtedly foresee in advance and describe in detail this peculiar phenomenon, with all its complexities.

Let us assume that morphine, when taken daily, causes the appearance of an antigen in the human organism; let us look at the results of this simple assumption. It is known that every antigen produces in turn a special antibody. By the analogy with the results observed in animals, it may be even asserted that in the human organism this antibody will appear approximately on the twentieth day after daily administration of morphine.

It is known that free antigen reacts instantaneously with its antibody. The effect of this reaction is anaphylactic shock. I have already described the terrors of the symptoms of anaphylactic shock. Therefore, it cannot be doubted that an individual who abuses daily administration of morphine will begin, approximately on the twentieth day, to need morphine organically in order to prevent shock. By this time he, inevitably, will have become a morphine addict, for it is known that morphine possesses the ability to prevent and check all symptoms of the anaphylactic shock.

The craving for morphine in this individual will undoubtedly be greater than any other need. For the sufferings caused by hunger, cold, or thirst cannot be compared with the torments of a man undergoing anaphylactic shock. If the given individual would suddenly discontinue morphine ingestion, we could predict in all its details the picture of the terrible disease—morphine withdrawal—which he, of course, would not be able to escape; we could also foresee the possibility of a fatal outcome. For the antigen liberated in the absence of morphine will inevitably enter into reaction with its antibody and thus produce a shock in the patient; the symptoms of morphine withdrawal are nothing but symptoms of anaphylactic shock. We would, of course, predict that in any given period of the disease the addict would need a definite minimum dose of morphine, which, however, would gradually increase in time. For the definite quantity of antigen circulating in his organism must inevitably increase with time. Similarly, it could be predicted that at the height of the disease the addict would no longer respond to injection of the usual dose of morphine by pleasant excitement or blissful repose. In his system all, or almost all, of the morphine would be spent for the reaction with the circulating antigen; while in the organism of normal individuals, in which there is no antigen, morphine acts directly upon nerve cells.

Let us now assume that the individual selected by us—whom we have already, on paper, transferred into a morphine addict—has gotten rid, in some way, of his organic need for morphine, and that about two years have passed. Let us further assume that this individual caught cold.[4] With general grippe, he was found to have catarrh of the upper respiratory tract and bronchitis. At the prescription of a physician who was not acquainted with his past, he began to take terpin hydrate in the form of the so-called elixir. The patient had no idea that this elixir contained a small quantity of morphine. What must have happened to him within a short time?

Experience and direct observation have already given a definite answer to this question: Under such conditions a former addict inevitably becomes an active addict again. As a rule, the relapse of the disease occurs within fifteen to twenty hours.

However, this interesting phenomenon has not yet been explained. The anaphylactic theory of morphinism not only explains but foresees the inevitability of this phenomenon. Let us recall that antibodies are retained in the organism for at least a number of years, if not for the entire lifetime. Therefore, every addict may be said to be in a state of potential disease. It is sufficient to introduce into his organism a quite insignificant dose of morphine in order to cause the production of the corresponding antigen. The patient is menaced again. The very beginning of his disease is repeated: The reaction between the antigen and the antibody produces anaphylactic shock. The severe symptoms of this shock are the symptoms of morphine withdrawal. These are also well known to the addict, and they will not fail to reappear. The relapse is inevitable, for morphine alone can prevent this complex torture of the patient, and the latter knows it. In this dilemma he returns inevitably to the hypodermic needle and morphine.

We can see that the anaphylactic theory not only explains all the phenomena of the given field, but precisely foresees every one of them in detail. If morphine, as a therapeutic preparation, had appeared on the markets of civilized countries only today, this theory could predict and describe everything that has been so far collected and recorded in literature as a result of seventy years' long observations. The weight and practical value of scientific theories are determined chiefly by their ability to predict new observations and facts of general interest. The anaphylactic theory has passed this test also with flying colors. It has even surpassed all my expectations.

Work done by me with a number of other persons over a period of five years (1930-1934) has resulted in experimental verification of this theory in many different ways. In particular, I have shown that animals that have survived anaphylactic shock, as well as morphine addicts who have been "cured" of their craving and consequently have gone through the violent symptoms of morphine withdrawal, continue to be for some time in quite a peculiar pathological state. Developing gradually after the shock, this peculiar *postanaphylactic* state ends in sudden and complete recovery, occurring in both cases thirty to forty days after the shock.[5]

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[4] This case has been described in detail by W. White.

Treatment of Withdrawal Symptoms

I shall now turn to experimental verification of the theory.

To the direct question, in what ways can the addicts be liberated from their slavery, i.e., from their organic need for morphine? The theory readily gives the following reply:

Morphine withdrawal symptoms cannot be considered otherwise than an anaphylactic shock. Consequently, every interference, and, in particular, every antishock preparation which checks or relieves the shock in animals, must in theory check or relieve to the same extent the torture of morphine withdrawal.[6]

Clinical observations have completely confirmed this prediction of the theory.

In practice, I had first to study in detail the physiological properties and the complex chemical structure not only of morphine, but also of all its known relatives—codeine, dionin, peronine, heroine, dicodide, dilaudid, eucodal, paramorphine. A long and complex chain of reasoning resulting from this general analysis has allowed me to find fifty-four antishock preparations. One of them, diphenylmethylpyrazolonyl (rossium) possessing relatively low toxicity renders innocuous from three to four lethal doses of antigen. This synthetic substance belongs to a class of organic compounds, no member of which has ever before been employed in therapy.[7] This preparation has been brought by me to the attention of the medical profession and studied in various sanitaria and hospitals of the United States and Canada. My preliminary observations have been, as a result, confirmed by a large number of physicians.

As it was to be expected, diphenylmethylpyrazolonyl (rossium) has proved to be a valuable therapeutic preparation for the unfortunate morphine addicts. It checks in a five-day course taken by mouth the most severe symptoms of withdrawal in drug addicts (morphinism, heroinism, codeinism, etc.); it markedly decreases all other symptoms and stops further craving.

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[5] However, the symptoms of this state may lead the patients, who have just gotten rid of their craving for morphine, to utter despair, and even cause a relapse of the disease. Failing to understand what is occurring, and what they are to expect, some of the patients lose hope for complete recovery and therefore return to the needle and morphine.

[6] Of course, only under the condition that the given preparation is distributed in the organisms of man and animals with perfect similarity, and if it remains in them a sufficient length of time.

[7] Its position of double bonds in the molecule and its molecular weight do not permit it to be classified as a relative of antipyrine; contrary to the basic antipyrine diphenylmethylpyrazolonyl reacts as a strong acid.

PHYSIOLOGY OF ATTITUDE—EMERGENCE OF EGO-ORGANIZATION

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(*Continued from page* 514)

D. Tonus of Somatic Muscle in Reaction to Viscero-Afferent Impulses

Emory (26) reports that "the tonus of skeletal (somatic) muscles is greater during the systole than during the diastole of the heart as represented by the height of the knee jerks."

The contractile tensions and movements of heart muscle, working against auricular and ventricular distention by inflowing blood, stimulate afferent nerve impulses which time or condition the inhibitory action of the vague centers and also act excitatorily upon somatic muscle. It is common medical observation that the attitudinal organization of man for work against opposing environmental forces, including social resistances, is dominated by the tonic power of his heart muscle. The strength or weakness of cardiac tone, and its easy recoverability from fatigue, give the feeling of adequacy of power to work courageously against the accelerating effects of asphyxia, of pain of fatigued somatic muscle, pain of injury, or the conditioning threat of pain from social failure, defeat and rejection, or other forms of punishment. Discouragement and depression of cardiac tone seems to attend the loss of certain conditioning excitatory stimuli, such as the encouraging demonstrations of affection from a beloved person.

Similar conditioning of organization of attitude from afferent nerve impulses arises, probably, from all the greater visceral segments, such as the bronchi, arteries, somatic muscle arterioles, esophagus, stomach, ileum, colon, rectum, bladder, and internal genital organs.

Fitting distention of the stomach with milk, in the cats of Bazett and Penfield (27), after ablation of the nervous system above the pons, excited purring behavior. Excessive distention of the stomach or gastric pouch (Goldberg) causes vomiting behavior. Distention of the rectum is reported by Magnus (28), to cause adaptations of posture characteristic for defecation, in animals having only the spinal cord intact.

The inspiratory augmentation of proprioceptive reflexes is reported by King (29), who found that with each inspiration in normal breathing the patella and Achilles jerks were augmented. These increases in tension are attributed by them to irradiation of impulse from the respiratory center.

A persistent rise in the knee jerks from one hundred to several hundred percent above the quiescent period during the hunger contractions of the stomach is reported by Carlson (30), and an increase of amplitude occurs ranging from 600 to one thousand percent at the end of the hunger period. The noises of flatus in the bowels, the passage of flatus, or inflation of a balloon in the stomach during the quiescent period produced a marked rise in the knee jerk amounting to several hundred percent.

E. Evidence of Characteristic Streams of Afferent Nerve Impulses Giving Characteristic Cravings and Emotional Feelings or Affective Tone, from Characteristic Degrees of Tension and Distention of Different Visceral Segments

The argument that viscera do not contribute feeling, or qualities of craving or affective tone, contains in its evidence a misleading contradiction. Cannon (31), states that "we are unaware of the contractions and relaxations of the stomach and intestines during digestion, of the rubbing of the stomach against the diaphragm, of the squeezing motions of the spleen" . . . "surgeons have found that the alimentary tract can be cut, torn, crushed and burned in operations on the unanaesthetized subject" . . . "normally the visceral processes are extraordinarily undemonstrative." The inferences neglect the one kind of functioning which gives afferent nerve impulses from the walls of the viscera with feeling of visceral craving or the quality of affective tone; and that is tonic contraction of the smooth muscle working on distending contents.

Cannon has himself made notable contributions to our knowledge of the peripheral origin of hunger and thirst. The principle of his interpretation is stated as follows: "With regard to the contention that reference to the periphery is not proof of peripheral origin of a sensation, we may answer that the force of that contention depends on the amount of accessory evidence which is available. Thus if we see an object come into contact with a finger, we are justified in assuming that the simultaneous sensation of touch which refers to that finger has resulted from contact, and is not a purely central experience accidentally attributed to an outlying member. Similarly in the case of hunger—all that we need as a support for the peripheral reference of the sensation is proof that sensations occur there, simultaneously with hunger pangs, which might reasonably be regarded as giving rise to those pangs (32). He (33) and Carlson (34) have shown that simultaneously with certain kinds of gastric tensions and movements we experience the gnawing pangs of volleys of afferent nerve impulses from certain fields of receptors, which pass to the higher centers of the nervous system, to cause characteristic reactions of the state of organization of functioning of the whole organism. Hunger pangs cease upon cessation of characteristic contractions of the stomach, or upon adequate distention by contents which do not necessarily need to be food.

It is common experience to feel hot or cold fluids passing down the esophagus to the stomach. We experience painful conflict of visceral contractions as a regurgitative oesophageal peristaltic wave is met by swallowing contractions.

Poulton (35), placed a rubber bag in different places in the oesophagus and stomach, and found upon inflating the bag and stretching the viscera the subjects experienced pain. This is a characteristic experience of mankind upon overeating; and emotionally excited contractions after eating can also excite nausea and vomiting and condition disgust for the particular kind of food eaten.

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(*To be continued*)

HEART DISEASE AND TUBERCULOSIS

Part III: Medical, Surgical and Social Measures to Lessen Their Prevalence (1)

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The first matter to be discussed here is the mental attitude of the individual afflicted with tuberculosis, for there are people who still believe that the psychology of the tuberculous patient is peculiar if not abnormal. One oftmentioned characteristic is their supposed intense selfishness. Our greatest phthisiologists, Laennec, Dettweiler, Grancher, Sir St. Clair Thomson and many other eminent physicians who devoted their lives and fortunes to the cure of tuberculosis, were themselves tuberculous invalids. It was the late Dr. Edward Livingston Trudeau, perhaps the greatest of them all, who wrote the following unforgettable lines:

"I have seen certainly more patience, courage, self-denial, and unselfish devotion to others in consumptives than I have noticed in the majority of healthy human beings. History is full of instances which prove that tuberculosis does not interfere with the development of the highest degree of the intellectual, the moral or the ethical sides of man's nature" (2).

With this in mind, let the physician impress upon family and friends the patient should be treated with the same consideration as one afflicted with any other disease. The patient himself should be made to feel that hopefulness, cheerfulness, patience and a serene mental attitude are essential to recovery.

The hygienic, dietetic and symptomatic treatment of the tuberculous is so well known, that there is no need to dwell upon it here. It is important to emphasize in regard to dietetic treatment, however, the harmfulness of overfeeding. Let the patient live as usual, on his three well-balanced meals a day and try to retain or attain his normal weight, and, if possible, a few pounds extra for reserve.

In regard to climatic environment for treatment of tuberculosis, our greatest American authority on that disease, Prof. Allen K. Krause, formerly of Johns Hopkins University, and now director of the Desert Sanatorium at Tucson, Arizona, makes the following declaration (3): "Consumption *can* be treated successfully anywhere, anywhere where freedom from bodily and mental stress is possible and prevails."

To this should be added that to deny the valuable effect of certain climatic regions as an adjuvant in the treatment of tuberculosis, is as dangerous and unscientific as a belief in the specific curative quality of any one particular climate.

The ideal climate for the average pulmonary patient in the earlier and more hopeful stages of the disease, is the one with the least extremes of temperature, with the purest atmosphere, relatively little humidity, much sunshine and all conditions which permit the patient to live comfortably out of doors the largest number of days out of the year, and the largest number of hours out of the twenty-four (4).

For bone and joint tuberculosis, particularly in children, a seacoast climate has been demonstrated to be of equal value to a high altitude with much sunshine.

Some day when it will be economically feasible to have airconditioning devices not only in hospitals, but in every private home, apartment house, or at least in the room of the tuberculous patient, the home treatment of the tuberculous will indeed be an easy and effective matter. An airconditioned room is particularly desirable when a case is so far advanced as to make removal to any other place inadvisable. A cheerful room with a pleasant view should, of course, be chosen for the invalid.

The temperature of an airconditioned room is 68° F. with a relative humidity of forty percent to fifty percent, dust free, of course, and with slow circulating air. Such an atmosphere constitutes an almost ideal condition for the treatment of pulmonary tuberculosis. When the patient's room is situated where disturbing noises prevail, the soundproof effect produced by the airtight devices will doubtlessly aid in the comfort of the patient.

In the article by Dr. Krause, referred to above, he expresses the following maxims: "1. Rest remains the sovereign remedy for tuberculosis. 2. Rest alone has returned thousands of consumptives to productive life."

To general rest, however, must be added as much local rest of the invaded lung as possible. General rest, in accordance with the degree of pathological involvement, should be either in bed, on a reclining chair, on the veranda, in an outdoor tent, an indoor window tent, or in a well ventilated room.

Daily massage is recommended to counteract the inevitable tendency towards loss of muscular power, a loss sometimes approaching degeneracy, particularly of arms and legs. This is especially important for those recovering patients who must resume manual labor on leaving the rest cure.

To obtain local rest of the tuberculous lung, I have found my method of controlled diaphragmatic respiration[1] the easiest, simplest and least costly. It is particularly suitable in the earlier stages of the disease. It gives the upper portion of the lung, usually the first invaded, at least relatively effective rest and thus facilitates the healing of the tuberculous lesion.

For lack of space, I shall quote a few authorities who have experimented with controlled diaphragmatic respiration and not cite any cases treated. A number of the latter were mentioned in my official *Report on Tuberculosis* (5).

Dr. George Dock, formerly professor of medicine at Washington University, St. Louis, and now one of the physicians at the Barlow Sanatorium, Los Angeles, wrote: "Like all methods that lead to closer cooperation between patient and therapeutist, the f nature

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[1] The modus operandi of controlled diaphragmatic respiration is fully described in the first portion of this article which appeared in the MEDICAL RECORD, January 2, 1935.

work has had a distinctly good psychological effect. In various reports from a group of patients, I find such statements as the following: 'helps to relax, quiets the heart, lessens fatigue, increases endurance.' I have a very strong impression that the more intelligent the patient, the more benefit he is likely to receive from carrying out your adjuvant along with the other necessary measures. I am especially interested in this method because I think you have shown a definite way of lessening movement in the part of the lung most affected as a rule. I look on the improvement of the abdominal circulation as of great importance and believe the psychological element of no little value."

Dr. Kennon Dunham of Cincinnati, president of the National Tuberculosis Association, reported the following: "Controlled respiration as recommended by Dr. Knopf has been used in my hospital and by my office force for quite a while. It works where the patient has the self-control to follow instructions. It is a valuable therapeutic measure."

Dr. Joel E. Goldthwait of Harvard, said: "The method not only seems entirely rational to me, but is the first attempt that I know of by anyone to employ it in the treatment of tuberculosis."

From Dr. Otto Pischinger, physician-in-chief of the Luitpoldheim Tuberculosis Sanatorium, Germany, I received the following: "I have tried your method of diaphragmatic respiration on myself first, and I was amazed at its far-reaching and favorable potentialities and am convinced of the good effect of prolonging the respiratory movements."

The well-known tuberculosis authority, the late Prof. Christian Saugman of Denmark, performed the almost impossible feat of reducing his respirations to three and one-half a minute. These are his words: "I have studied your method with great interest and tried it on myself and was able to reduce my respirations to three and one-half per minute without difficulty. . ... I am employing your method in the treatment of my patients at the sanatorium."

I wish also to mention the concise comment of Dr. Edward Archibald, professor of thoracic surgery, McGill University, who said: "This contribution to the therapy of tuberculosis is most valuable."

The psychological benefit to the chronic pulmonary invalid which accompanies the essential local rest of the invaded lung, is of paramount importance. Thus far, diaphragmatic respiration is the only therapeutic measure which the patient himself can apply to improve his physical condition without fear of overdoing it. Because he cannot possibly think of anything else when resorting to controlled diaphragmatic respiration, it will divert his mind and prevent introspection and depressing moods. This physiological adjuvant in the treatment of pulmonary tuberculosis is, of course, particularly indicated in those patients who are obliged to be in bed or on a reclining chair. When practised long enough, and when the patient is on the road to recovery, and allowed some exercise, this breathing may become automatic.

There is one more condition, namely, pleurisy, in which diaphragmatic respiration is of particular value. The pain due to inflammation of the pleura, whether of traumatic, tuberculous or other origin, will subside by giving the pleura as little chance as possible to move.

Dr. William G. Turnbull, superintendent of the Philadelphia General Hospital, and also in charge of the Nurses Infirmary, wrote me that his student nurses seem to be particularly susceptible to attacks of pleurisy, though only occasionally of a tuberculous nature. He then added: "I have found that these girls can get more relief during a period of acute attack if I take time to teach them your breathing method, than they can by strapping the chest. In the treatment of the tuberculous patient, I think your method is extremely valuable aside from its actual therapeutic effect, in that it gives us one more agent through which we can secure the necessary psychological influence over our patients."

There exists any number of devices to restrict respiratory movement by splinting the thorax. A very practical one is that by Dr. Oelgetz, known as the chest splint. Helpful as are these devices for partial immobilization of the infected lung, none compares with the almost marvelous curative effect of the air splint produced by artificial pneumothorax. (Injection of nitrogen or sterilized air in the intrapleural spaces.) For this unique means of causing the collapse and rest of the tuberculous lung, we are indebted to Forlanini of Italy and Murphy of Chicago.

How prevalent is now the practice of pneumothorax for the treatment of pulmonary tuberculosis, may be gleaned from the report issued by this year's Chicago Municipal Tuberculosis Sanitarium Survey of the last three and one-half years. No less than two thousand pneumothorax treatments have been given. Of those who received this treatment, eighty-five percent were advanced cases and nearly twelve hundred or sixty percent were clinically improved (6).

"During the Century of Progress Exposition, a thousand or so 'refills' were given to visitors whose air leaked during their trip to the Fair." The report urged coordination of the nation's phthisiotherapeutists in this work, adding: "It is not too absurd to suppose that in the future a line of 'filling stations' will reach across the country, to which patients may go, without the trepidation and anxiety which seemed to actuate them as they called on us for a refill."

One can obtain an idea of the extensive literature which has been published on the subject of pneumothorax in recent years, through *The History of Artificial Pneumothorax in America* (7), and *A Survey of Artificial Pneumothorax in Representative American Sanatoria* (1915-1930) (8).

Nearly all authorities agree as to the value of carefully selected cases for collapse therapy and the only diversity of opinion which exists is whether or not bilateral pneumothorax is justified. While there is justification for a difference of views inasmuch as apparently serious dyspnea by a collapse of both sides of the lung could result, I do not think that anything of that sort is to be feared in the average bilateral case. Aside from the fact that one side is usually in better condition than the other, diaphragmatic respiration is possible, thereby supplying sufficient oxygen, even though both sides are involved, to the bed patient who is physically and mentally quiet. Thus, I believe, a bilateral pneumothorax, if indicated, can safely be tried and in the event of serious dyspnea, some air can easily be withdrawn.

To obtain a result similar to what is expected from pneumothorax in cases not sufficiently advanced to require this operation, the cutting or crushing of the phrenic nerve to produce a paralysis of the diaphragm, is now often resorted to. As in pneumothorax, the literature on phrenicectomy is vast (9) and I need not describe here the technic thereof. I wish, however, to copy from Dr. John Alexander's article on "Temporary Phrenic Nerve Paralysis" (10) the following: "The clinical results from phrenic paralysis are notoriously unpredictable. In some cases expected success is not realized, while in others healing of the lesions occurs when only improvement had been anticipated. Even when the disease is strictly confined to one lung, it is obviously undesirable that the patient should have a permanent paralysis of the diaphragm, if this does not bring about the desired clinical effect."

It seems that the crushing of the phrenic nerve is more preferable for producing a paralysis of the diaphragm, because the refunctioning of the latter is more likely than when the entire nerve has been cut. Some authorities try only the cutting of one or several of the branches of the phrenic nerve, considering this a more conservative measure.

Pneumolysis may have to be performed when pleuritic adhesions are very extensive and serious cavitation is present. The well-known Jacobeus operation (intrapleural pneumolysis) can, with the help of x rays, be performed relatively easily in experienced hands. The cutting of the adhesions is usually done with the electric knife. For this operation, however, there must already exist at least a partial pneumothorax.

When it is utterly impossible even to obtain a partial pneumothorax, a Torek open pneumolysis operation is indicated (11). It has the advantage over complete thoracoplasty inasmuch as it retains the thoracic bony frame and leaves the patient less of an invalid. Torek makes a long incision of about fifteen cm. in one of the intercostal spaces down to and through the parietal pleura. The adhesions between parietal and visceral pleura are separated anteriorly, laterally, posteriorly and at the apex. Where the adhesions are very firm, they are divided by a sharp dissector or the electric knife. Thus a perfect collapse is brought about. The wound is then closed and refills can be made when indicated.

Finally, when all the heretofore mentioned procedures for obtaining a collapse have failed, we then resort to thoracoplasty in one, two or three stages. The operation consists in the partial removal of several ribs, and has in many instances been life-saving and health-restoring. The American Association for Thoracic Surgery and their periodical is exclusively devoted to discussions of the constantly improving methods of thoracoplasty (12).

Of relatively little known remedies in tuberculosis, mention must be made of the gold salts, particularly sanocrysin, which is a sodium thiosulphate. The theory of this treatment is to disintegrate the tubercle bacilli *in vivo*, concomitantly checking the toxic reaction caused by the broken down bacilli. This is a costly remedy and dangerous to kidney and liver. The results are not as satisfactory as those obtained by our present hygienic, dietetic, medical and surgical measures.

Insulin, in the hands of some, has proved a valuable adjuvant in phthisiotherapy. Others think it useless. Its advocates do not, of course, claim any specific action on the tuberculous process, but maintain that it helps nutrition and general upbuilding of the patient (13).

The medicosocial and surgical aspects and aftercare in heart disease and tuberculosis necessarily differ from each other, the former disease usually being acute and the latter, chronic. The majority of tuberculous invalids belong to the poorer classes while the sufferers from heart disease may safely be said, to be found most frequently among the well-to-do. Cardiac sufferers, are, of course, also found among the poorer classes depending on hospital care. Some cases become chronic or at least longlasting.

Chronic heart sufferers among the poor often crowd our public hospitals to the detriment of acute cases awaiting admission. Such patients could be advantageously treated in their homes by the hospital physician who had attended the case while in the institution. Since the municipal hospital is at an economic advantage by this arrangement, the visiting hospital physician should be compensated for this by the municipality. Lillian D. Wald's Henry Street Settlement, which furnishes skillful nursing virtually free, proves of inestimable value in this type of case. If the patient prefers the care of his family physician if he has one, I am sure the hospital physician will be glad to consult with him as to the future treatment of the patient.

For congestive heart conditions and angina pectoris, a total or partial thyroidectomy has been performed. There seems to be a less dangerous procedure to relieve cardiac suffering due to hyperthyroidism. This operation consists in the ligation of both superior and both inferior thyroid arteries. The results have been gratifying in a number of cases.

Lyon and Horgan's operation known as "dissociation of the thyroid from the sympathetic nervous system and reduction of the blood supply to the thyroid" is the latest surgical effort in angina. (*Jour. of Southern Med. Assn.*, December, 1934.)

Because of no personal experience as to the value of this procedure, I addressed letters of inquiry to a number of eminent authorities in cardiology, neurology and thoracic surgery.

Dr. Louis Faugères Bishop wrote me as follows: "Lyon and Horgan have performed this operation on several cases of angina pectoris, following which there has been definite relief of pain so that these patients were able to lead more active lives. The value of this simpler operation is that there is apparently no artificial myxedema produced as in the more radical operation of total ablation. Our belief is that the number of cases are too few at this time to draw any conclusions, but if the same results are effected by this simpler operation as by the more radical operation, it is a definite advance."

Dr. Smith Ely Jelliffe responded thus: "Angina pectoris, you need not be told, is not a single situ-

(*Continued on page* 585)

Symposium on Dietetics

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MODERN DIETETICS AND THE PRACTITIONER*

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The feeding of the sick has undergone marked advances during the past decades. Not many years ago diet for the well and for the ailing was really nothing but a procedure governed by rule of thumb, aided by empiricisms. Many were the heritages, inaccuracies and legendary dietetic procedures at our disposal at that time. As our investigations progressed, these old standbys began to prove worthless and in some instances what had been considered of specific dietotherapeutic value was found to be actually deleterious and disturbing to the professional morale.

Probably the first major source of aid in this country was the tabulation of the nutritive elements of common foods. This was first presented by the epochal work of Atwater and Bryant, who were responsible for the material contained in the famous Bulletin 28 of the Department of Agriculture, published in 1906. This work has really been the backbone of the analyses of American foods since that time. From a more popular medical viewpoint, in a modified form, E. A. Locke rendered this material readily available to the practitioner, nutritionist, and food-conscious patient through his *Food Values,* first published in 1911.

As years passed we were offered chemical analyses of the same foods. Coincident with this work, information relative to the action of the physical body upon the various foodstuffs and minerals was supplied. Promptly thereafter biochemistry began to be of clinical importance. For the first time it was possible to determine what was occurring in the body as the result of diet in health and disease. Folin, Myers, Benedict, Van Slyke and others have afforded us most important data with reference to the body's reaction to foods. More elaborate chemical aids were constantly introduced with the result that empiricism was rapidly replaced by scientific knowledge.

Today, dietetic management of patients assumes a rôle far too complicated to have been played by the physician of several decades ago. It demands a knowledge of physiology, pathology, chemistry, nutrition and psychology, among other prerequisites. No longer can the self-educated nurse-cook be entrusted with the planning of a diet. No longer can gross hand weighing be utilized in the establishment of diet quantities. The time has arrived when dietetics has become a science wherein the likelihood of error on the part of the physician should be at a minimum, and the greatest chance of error in the proper application of a dietetic regimen should rest only on a faulty diagnosis.

The practising physician, as a rule, is completely unskilled in dietetics. His preliminary training encompasses little or nothing concerning the details of food prescription. At most, he is familiar in a general way with some diet for duodenal ulcer, diabetes or typhoid fever, but very promptly this original knowledge is dissipated and he is forced to depend upon the hospital dietitian. Through the efforts of students of nutrition the physician is realizing that the science of nutrition is a fundamental asset in his care of the patient.

To approach properly the prescription of a satisfactory diet, it is essential that a number of phases be taken into consideration in reference to the individual for whom items of food are to be regulated. A carefully taken dietetic history extending over the previous months should be immediately instituted. An analysis of the patient's habits, idiosyncrasies, likes and dislikes, together with a volumetric and caloric estimation of several average daily menus should be included. Casual estimation of the nutritive as well as the nonnutritive factors of such a menu should be ascertained. This means that the carbohydrate, fat, protein, alcohol and water intake per diem, as observed in the past, should be established. Further refinement may be done by grossly estimating the quantity of the various minerals, but this appears to be a questionably advantageous factor, particularly as our knowledge of minerals is exceedingly deficient.

Complete chemical blood analyses may be of value not only in establishing the present status of the body as regards food elements, but also in supplying information relative to any metabolic defect. Specifically, the items of interest in the blood are sodium chloride, calcium, urea nitrogen, uric acid, sugar, CO_2 combining power, cholesterol and hemoglobin. All of these substances are subject to marked change due to the over or under ingestion of various foods. There are also a number of other blood elements, particularly of the metallic family, which are of lesser importance.

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*Read before the South Brooklyn Medical Society, Brooklyn, N. Y., March 14, 1935.

Prior to planning a diet, it can be readily seen that the past dietetic history combined with the chemical blood analyses, must establish certain dietetic demands aside from any presenting pathological condition.

It is important in the analysis of the patient's immediate complaint, to determine whether the clinical picture, as presented at the time of the complaint, is a true product of a diseased entity itself, or only indirectly due to this disease. For example, has the patient partaken of sufficient food yielding enough caloric intake to maintain his established body weight, or has his complaint, which might be pains in the stomach, produced an anorexia wherein this caloric intake has been markedly reduced? It is not uncommon to find the sufferer presenting a picture of starvation rather than of organic incapacity to assimilate sufficient calories.

The real work of the nutritionist commences only after the establishment of a specific diagnosis. At this juncture it is essential to review the new dietetic demands which are made in the face of a disturbed physiological state. For example, if the patient is suffering from a duodenal ulcer, and the indicated diet is to be low in acid as well as low in those foods highest in roughage, it is important for the prescriber to take into account the total physiological picture, aside from the specific diagnosis. Such factors as overweight, anemia, idiosyncrasies, together with the likes and dislikes on the part of the patient, should be considered when the dietetic compilation is made. If a patient, for some reason or other, has never been able to take eggs, it is far from good practice — unless the indication is imperative — to force on him or her, offending food. Like recognition should be observed in similar instances, when the intolerance has been substantiated as being real and not fancied.

Dietetic Incompatibilities

Dietetic incompatibilities often arise. Instances of this are experienced in the management of spastic colitis and chronic cholecystitis, two conditions which are commonly coexistent. The patient suffering with this combination often exhibits a definite fat intolerance which generally makes the institution of a colitis diet of relatively high fat content, impractical. The present-day accepted diet for spastic colitis is one in which roughage is avoided and in which fat is generally high, whereas the generally recognized diet for gallbladder disease is the antithesis thereof. This should be investigated and a practical readjustment should be instituted. In dealing with an overweight patient suffering from colitis, it behooves the practitioner to compute a diet of a lower caloric value than that routinely prescribed for this condition. In other words, wherever possible, the principle of feeding the patient and not solely the disease should be practised.

The physician is likely to fall into error, resulting from misunderstanding or improper application of the armamentarium with which he has been supplied. This is especially true in the establishment of specific diets, the specificity of which may call for a set amount of protein, fat, carbohydrate or some of the mineral substances. For example, lentils are rated as one of the highest iron-bearing food substances available. There can be no question concerning the authenticity of the analysis of the lentil, but unfortunately, this analysis was done on dried lentil, which is not edible as such. In the course of its preparation as a palatable food, the iron content becomes so diminished that it is impractical to consider it as a real iron-bearing factor. In the dried state the carbohydrate content of macaroni, spaghetti and noodles is exceedingly high, but after these foods are boiled, owing to dilution by water, the carbohydrate value is markedly diminished and exceedingly variable.

Another illustration of a likely misadoption of analytical data may be applied to parsley, which has been proved to be an excellent source of vitamin A and vitamin C. It is very likely that with this information, the practitioner will probably recommend parsley as a valuable vitamin A and C food. When one considers the relatively infinitesimal amount of parsley that a patient usually takes, it can readily be seen that its prescription is little short of ridiculous. Still another illustration of a likely misapplication of analyses might be found in the prescription of cocoa with particular reference to its copper value. The copper content of cocoa is listed as being next to the highest of all edible foods. Hence, it apparently would be indicated to recommend this product in those diets for which a high copper concentration is desired. When, however, one considers that the high position of cocoa in the list of copper percentages has been established from the analysis of dry cocoa and when one realizes the small amount of actual cocoa that is used when the substance is made into a beverage or used as a flavoring in some dessert, it is evident that the actual amount of copper obtained becomes negligible.

Errors are likely to creep in when it becomes necessary to augment a diet by additional protein. It is well known that gelatin, fish, cheese, white of egg, poultry and meat are sources from which protein can be obtained. Gelatin, if the analyses are correct, contains from ninety to ninety-five percent protein. However true this statement may be, it readily can be seen that the giving of crude gelatin as a food is impractical. Therefore, it is generally given in solution which has to be so dilute for palatability as to render the protein content of little value.

The present status of food analyses leaves much to be desired. Very little work has been done since the publishing of Bulletin 28, previously referred to, in the way of furnishing additional analyses of percentage compositions of carbohydrates, fats and proteins of the common foods. A review of the various food analytical tables available at the present writing, reveals nothing but an alteration or readaptation of the material contained in that bulletin, with the result that the inaccuracies and alterations have been so extreme as to suggest the proverb, "It's a wise child who knows its own father."

The mineral analyses have shown more promise, and a wealth of material, much of which is inaccurate, has been produced from a great number of sources. At the present time we need further investigation of the nutritional and mineral analyses of cooked foods. This is readily appreciated when we find analyses mostly of the raw products, which renders it difficult to accurately prepare a patient's dietary.

During the past several decades the American public has come to utilize canned and packaged foods. From the dietetic viewpoint, strange as it may seem, little recognition has been taken of the products, and the analyses of the same have been heretofore unavailable to the practitioner without correspondence with the manufacturer. Hence, it behooves us to have readily available the analyses of these products in conjunction with the analyses of the common American foods. The use of commercial foods has so far infiltrated into the daily menu of the American public that to preserve the old attitude of insisting upon nothing but fresh and noncommercial products is archaic.

At the present time we are besieged with fad diets, freak diets and other diet crazes capable of physical destruction. A number, if not most, of these vogues have no scientific foundation. Most base their claims for recognition upon unsound physiological principles.

The rôle of nutritional quack, at the present time, is directed principally at reduction cures. Upon analysis, the majority of those diets that do accomplish a reduction reveal starvation in some form or other.

Much propaganda is being issued in reference to vitamins. Commercial interests are sponsoring foods synthetically impregnated therewith. If we were to believe the literature with which we are deluged, our mental equilibrium would be in a constant state of turmoil. Failure to take this or that vitamin as advised by our commercial friends would appear to make us guilty of self-destruction. Needless to say, it has been universally proved that any well-balanced diet contains adequate vitamins of all types to forestall any diseases traceable to vitamin deficiency. The same attitude may be assumed with safety in reference to minerals.

Another confusing piece of propaganda has been built around the term "acidosis." This unoffending word has given birth to myriads of definitions. Anything from acid mouth to acidity of the urine has, at one time or another, been called acidosis. In combating this apparently dread disease, which incidentally is nothing but a symptom, foods have been maliciously misclassed and incorrectly prescribed.

Still another much-abused term is "protein." It had become a fetish among the American public and incidentally among many of the profession, empirically to prescribe a low protein diet for the individual beyond middle life. It seemed well understood and agreed that red meats, eggs, poultry and fish were not well tolerated by the elderly. As a result, the physician finds in his practice today, a large number of patients in later life who are suffering from nutritional anemia because of the adherence to this heritage. In these cases it is the rule to find a subnormal blood urea nitrogen which is pathognomonic of protein deprivation. As a matter of fact, investigations reveal that the daily protein intake of the average American is only forty-five to fifty grams. Consequently, in view of the fact that the current recommended requirement per diem is seventy-five grams per 150 pounds, to replace the daily protein waste, it must be evident that the actual facts do not confirm the statement that the American people eat too much protein.

Further propaganda extols the claims of diets predominating in vegetables. In these instances it is assumed that the normal protein requirement is supplied in the main by vegetables and nuts. Obviously, to obtain the requisite amount of protein from these items, makes it necessary for the total vegetable and nut ingestion to be beyond the average volumetric capacity of a normal person.

Much interest is being shown by the laity in a socalled protein-starch regimen. We are constantly hearing that starches and proteins should not be taken at the same meal. It is asserted that the two items are incompatible when ingested at the same time. The principle of this diet is physiologically unsound and may be capable of doing actual harm to those who follow it. This unphysiological proposal is most aptly controverted by the very preachings of its chief endorser. Milk and vegetables are allowed at the same or different times. It takes but the simplest mind, medical or otherwise, promptly to realize that the starch and protein components in these two items of foods are inseparable.

As a result of the advances in the several fields of nutrition, many of the empiricisms of the past have been refuted. The great strength-giving qualities of broth have been proved to be a myth. Red meat, in contradistinction to well-done meat, has likewise been found to be a differentiation without a nutritional difference. The white meat of chicken as a food for the invalid, aside from its possible pleasing appearance, has acquired a successful competitor in the dark meat from the same fowl. We have been incessantly ballyhooed by the claims of this type or that type of coffee. We are constantly being confused by the health-giving or detrimental features contained in stale, fresh or decaffeinated coffees or coffee substitutes. The advertising propaganda in reference to coffee or coffee substitutes seems to be directed essentially at that terrible offending alkaloid —caffeine. Little cognizance is taken of the other elements contained in coffee, whether stale, fresh or decaffeinated. From the gastroenterological viewpoint it is not felt that the caffeine is the major factor in the production of detrimental effects from the use of coffee, but that the other elements contained in the coffee beverage are the culprits.

Fortunately, most Americans do not exhibit sufficient tenacity to follow any type of diet until the full benefit or the detrimental findings become evident. The result, as a rule, is production of preclinical harm. In a minority of instances serious physical damage has been accomplished.

The following is presented as an attempted hypothesis in the establishment of any diet in health or disease:

The proper attitude to assume in reference to any newly-developed diet is to check its principles against sound, known physiological demands. When these are met by any new regimen, and when such things as palatability and avoidance of monotony are accomplished, together with successful demonstration of clinical response under competent observation, then such a dietary is worthy of commendation and institution.

580 Park Avenue.

DIETETIC AND HYGIENIC MANAGEMENT OF CHOLELITHIASIS*

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The intimate relationship between the diet and gallstone disease is well recognized, and a regulation of food intake, both qualitative and quantitative, is, therefore, the first dictate in the prophylaxis of gallstone colic. Hetényi has, since 1920, kept an interesting record of 1050 gallbladder cases to determine in each case which article of diet brought on a colic. In almost sixty percent of the cases, the immediate cause of the colic was a fatty meal.[1] He believes that dietetic errors cause disturbances through the liver rather than by acting directly on the gallbladder.

Bofinger believes that the condition of the patient is the best guide to the diet. In many cases the decisive factor preceding a gallstone attack is emotional excitement. Overeating must be avoided, and the diet should contain sufficient roughage to avoid constipation. Cellulose is an hepatic stimulant and, by its laxative action, an indirect intestinal antiseptic. The iron contained in chlorophyl is an excellent cholagogue; that is why green cellulose is preferable to any other.

Molnár states that, when there is a tendency to gallstone disease, he immediately decreases food intake, particularly that of starches and fats, to check adiposity. As infection favors cholelithiasis, stale or leftover food should not be eaten. To avoid biliary stasis, a mixed diet, small and frequent meals, should be prescribed. Foods rich in cholesterol, such as egg-yolk, butter, cream, liver, calves' brains are prohibited. High-melting fats, such as mutton fat, are more objectionable than low-melting fats. Fresh butter is less objectionable than cooked butter. Hardboiled eggs are better tolerated than egg-containing foods. A cholesterol-poor diet should be maintained permanently. A diet poor in vitamin A may favor stone formation by inducing hypercholesteremia.

Dietary indiscretions, especially overeating, may be a causative factor of gallstone colic. Ice cream or water ices, alcoholic drinks and strong coffee may bring on an attack.

Molnár divides the diet between colic intervals into two categories: food that increases bile flow and food that contracts the gallbladder and extrahepatic ducts. The latter should be avoided in case of a painful gallbladder that may contain a stone wedged in the neck; the former should be avoided when the liver cells require rest rather than stimulation.

Undoubtedly, in every case of gallstone disease, there is more or less hepatitis. The liver cells take part in digestion and may be disturbed by many food elements. Carbohydrates are least likely to cause trouble and should constitute the main diet, except in obesity. Protein, by irritating the liver cells, stimulates bile secretion. Decomposition products of protein, particularly meats, may even act as direct cell poisons; meat should be eaten only once a day and cheese in moderation. Water, tea and weak coffee do not influence the flow of bile. Milk should not be taken in large quantities.

General Rules for Diet in Gallstone Disease

Chauffard formulated the following general rules for diet in gallstone disease.

1. The diet must be well tolerated by the patient. It must, therefore, be individualized, must not be too liberal or too restricted. Not infrequently patients are seen in a greatly impaired state of nutrition and with diminished powers of resistance. The utmost skill of the physician is required for the judicious determination of a happy medium for each individual. Much depends on the intelligence of the patient. An adult who does not know what his stomach can tolerate is certainly in a sad state and is in constant danger of either having indigestion or becoming undernourished. It is certain that those errors in diet that produce a gastroduodenal catarrh may bring on gallstone attacks, a fact readily explained by the increased possibility of an infection of the bile ducts through the duodenum.
2. The diet must be planned so that, within the limits of possibility, it excludes articles that, according to the present state of our knowledge, may stimulate gallstone formation. Among these foods are, above all, cholesterol, abundantly present in brains and egg-yolks; fats, particularly fried fats, increase lipemia and are to be avoided.
3. The diet should avoid articles that may cause toxic fermentation in the intestine and thereby favor infection of the bile ducts.

We find that the preparation of food is an important element in the diet. It is also very essential that the patient really enjoys his meals, without developing a phobia as to whether even a small amount of a certain dish is going to be good or bad for him. For this reason we allow considerable latitude in the choice of the menu and do not enforce military discipline.

Generally speaking, the diet of a gallstone patient should be predominantly vegetarian. An associated gastroenteritis must receive consideration, and irritating foods are to be avoided, such as eggs, butter cream, fish, beans, peas. Although it is hardly possible to exclude these substances from the diet altogether, it is of special importance to avoid fresh bread, yeast-containing cakes and pastries.

The hunger pain, which frequently occurs in cholelithiasis, is probably caused by distention of the gallbladder. Small meals frequently tend to prevent biliary stagnation, and it is better for the patient to eat something every two hours rather than to eat three large meals a day.

Gallstone sufferers as a rule do not drink enough liquids, most essential to the organism. Copious water drinking should be encouraged to dilute the body fluids, flush the biliary passages and stimulate intestinal peristalsis. It is important that the patient avoids ice-cold beverages, since the chill they produce is detrimental to the stomach and gallbladder. The habitual use of ice cubes by patients, because of their ready availability since the introduction of electrical refrigeration, has increased gastrointestinal disturbances.

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*Clinic of Samuel Weiss, M.D., F.A.C.P., Department of Gastro-enterology, New York Polyclinic Medical School and Hospital.

[1] Lard, bacon and goosefat are more injurious than butter and fried fats are more injurious than cold fats.

The patient may take a glass of natural Carlsbad water before breakfast and a glass of ordinary hot water before each meal. Where the constant use of Carlsbad salts produces gastric or intestinal catarrh, effervescent sodium phosphate should be prescribed. Wine, especially white wine, is a cholagogue, alcoholic liquors in quantities are harmful.

Naunyn recommended that patients with gallbladder disease follow a special regimen. This consisted of a three-hour rest twice daily and applications of hot flaxseed poultices over the liver region. In addition the patient was to drink 100 gm. (three ounces) of hot water with Carlsbad salts; this was to be taken every fifteen minutes during the first hour of rest. The total amount of fluids such patients were to consume daily was 600 to 800 gm. (eighteen to twenty-four ounces). In addition to the liquid consumed, the patient was instructed to have five meals daily.

Diet in Hepatic Disease

Fructier also calls attention to the importance of diet in hepatic disease. He finds that patients with hyperacidity tolerate fried foods much better than individuals with hypochlorhydria or hepatic disease.

Furthermore, the preparation of food is important. The more the object fried is impregnated with fat, the more indigestible it is; from this point of view, the choice of the frying medium and the way the operation is carried out, are important.

Butter is a very bad raw material for frying. As it cannot support a high temperature, the object dipped into it is not "set" and must be cooked for a long time; its surface does not become covered with a protecting crust and the fatty matter soaks abundantly and deeply into it, impregnating it through and through. The same holds good, though in lesser degree, with vegetable butter. Lard, with or without beef-dripping, makes much better fried dishes, because it can be heated to a higher degree; it has a tendency to penetrate and saturate the entire mass, thus it is useful for frying foods quickly.

Olive oil is the best frying medium. It boils at 300° C. and supports high temperatures without burning, does not penetrate far below the surface and affords an exceptionally light dry fry.

Spa Treatment

As to the spas, experience has shown the benefit derived by patients from warm, alkaline, sulphur-containing water such as those of Carlsbad and the warm, soda-spas of Vichy and Ems, and from the cold springs of Mergentheim and Saratoga. These waters have a favorable influence on gastrointestinal catarrh, although they do not produce any direct effect on the stones. Neither do they have any curative effect on the gallbladder mucosa, and they are not really cholagogues. Therefore, it is desirable not to overestimate the benefits to be derived from spa treatment. However, the environment and the mode of life at the spa, warm mud packs, moderate exercise, easy life, are extremely beneficial to the organism. The patient with a chronic jaundice due to a stone or occlusion of the bile ducts will certainly get little or no benefit from a European or an American spa.

Borak reports the case of a patient who had had gallstone colic for several months during the menstrual period. Temporary sterilization by exposure to the x rays caused the gallstone attacks and the menstruation to disappear for several months. When the menses as well as the gallstone colic returned, administration of a castration dose relieved the patient. In another case of uterine myoma with bleeding, the gallstone colic as well as the hemorrhages were benefited by x ray therapy.

Physical Exercise and Clothing

This must also be individualized in accordance with age, strength and state of health of the patient. Exercise is important, because the increased movements of the muscles of the diaphragm stimulate the flow of the bile, correcting the biliary stagnation so harmful in these cases. Horseback riding is an ideal exercise, because the patient is out of doors, requires activity of all the muscles of the body, and stimulates circulation and respiration. Water sports, golf, tennis, skating, bicycling, dancing, are great aids in improving the general tonus, thus having a favorable reaction on the gallbladder. Above all, walking and mountain climbing in moderation, if possible, should be made a part of the patient's routine. Calisthenics before an open window, in the morning and at night are within the reach of all classes of patients, rich and poor alike. The resources of a gymnasium, if available, should be utilized, but they must be intelligently applied; the expert use of the Zander apparatus is certainly advantageous. After delivery, the relaxed condition of the abdominal muscles and the visceroptosis should be corrected by scientific massage and properly fitted supporters. Care should be taken not to cause pressure on the gallbladder, as cholecystitis may thus be produced.

Particularly in women, tight belts and corsets should be avoided. This, of course, does not apply to orthopedic corsets or to specially made abdominal supporters for the correction of visceroptosis. Female dress of today hardly provides sufficient warmth for the abdominal region in the cold winter months; a flannel binder across the abdomen may be useful in avoiding chilling of the viscera.

Diets of Practical Value

We have found the following diets of material value in our practice:

In purely functional disturbances of the liver, as hepatargia, acholia, hepatic autointoxication, the first object should be to abolish the cause, which is overeating in general and excess of protein foods in particular. The overtax on the detoxicating capacity of the liver should be stopped forthwith, so that the nitrogen bases of urea and the toxins resulting from intestinal putrefaction may disappear from the blood. A diet of milk in various forms: junket, koumyss, eggnog, custard, is especially appropriate, and the patient should drink plenty of water in order to flush the kidneys freely. This will usually overcome the bilious attack quite promptly.

Catarrhal Jaundice

The diet must be governed by the gastrointestinal symptoms which characterize the onset. During the initial period of vomiting, feeding is hardly possible and gastric rest is indicated until the violent nausea has subsided. Later a liquid diet may be given: skimmed or peptonized milk, diluted with limewater; beef bouillon, chicken broth, strained gruels. As improvement proceeds, cereal soups and strained purees may be added; koumyss or zoolak, junket, buttermilk. With returning appetite the patient may have breast of chicken, broiled lamb chop, roast beef or steak, sweetbreads without gravy; baked or mashed potatoes, finely chopped spinach, thoroughly steamed rice and the like. Well-baked crisp bread, dry toast or zweiback should be substituted for the ordinary doughy bread. Fats (butter) must be restricted to the irreducible minimum. Coarse or flatulence-inducing vegetables (beans, cabbage), sharp spices, condiments or sauces (mustard, mayonnaise) are forbidden. The patient must drink copiously of nonalcoholic fluids. The administration of glucose by rectum or intravenously, also milk sugar, one teaspoonful several times daily, is beneficial. The temperature of food and drink should be moderate.

Gallstone Colic

Chauffard recommends a cholesterol-poor diet. He forbids eggs, stewed and fried foods, sweetbreads, liver, goose, duck, kidney or game, highly spiced dishes, oily vegetables, strong cheeses, aërated water, alcoholic beverages, etc. He advocates skim milk, milk soups, vegetables, rice, farinaceous foods such as tapioca, white meat, lean meat, boiled, broiled or roasted, salt-water fish containing little fat or oil and river fish which are not fried; cereals potatoes (mashed or baked). Mild cheeses and fruit are permitted only after three months.

Carlsbad Cure Modified for Home Application

Directions for the use of the Carlsbad water and salts at home are as follows:

7.30 a.m.—Arise.

7:45 a.m.—Take one glass (eight oz.) Carlsbad water.[2]

8:00 a.m.—Take one glass (eight oz.) Carlsbad water. (To prepare the Carlsbad water add one teaspoonful Carlsbad salts [or sodium sulphate] to sixteen oz. of water at about 100° F. Sip water slowly. In the intervals between drinking and after drinking the water, the patient should walk about slowly.)

8:15 to 9 a.m.—Gentle exercise in open air, walking, etc.

9:15 a.m.—Breakfast (one choice each): A. Coffee, tea, cocoa, milk, cereal decoction. B. Soft boiled or poached egg,[3] lean ham, butter, crisp bacon. C. Rolls, zwieback, toast, graham bread, rusk.

1:00 p.m. luncheon.—Limited choice of the following:

Soup: Bouillon, vegetable soup, rice, chicken broth.

Meat: Fowl, fish, lamb, beef, ham, mutton.

Vegetables: Spinach, asparagus, stewed tomatoes, eggplant, artichokes, celery, green peas, string beans.

Salads: Lettuce, tomato, romaine, cress, endive.

Starchy foods: Potatoes, boiled, baked or mashed; pastes, rice.

Desserts: Puddings; rice, bread, cottage, farina; or fruits: raw apples, peaches, oranges, plums, pineapple, bananas, pears, grapes; or stewed apples, prunes, peaches, pears, apricots, plums.

Beverages: Water or still alkaline mineral water, four to eight ounces.

7:00 p.m. Supper—Meat, broiled, boiled, steamed, baked or roasted; vegetables; starchy foods; stewed fruits.

Beverages: Water or mineral water, four to eight ounces.

Articles forbidden: Spices, shellfish, cheese, pastries, cream, rich desserts and made dishes, salmon, mackerel, gravies, condiments; dry beans and lentils. Eat slowly and masticate food thoroughly.

Baths: Morning. During the week take three warm baths at a temperature of 95° F., two pounds of sea salts or Epsom salts to each full bath.

Hot fomentations: Apply warmed cloths over the liver for one hour, 9 p.m. to 10 p.m. or 10 p.m. to 11 p.m.

Exercise: General directions: Walk one-half hour in the morning, after drinking the second glass of Carlsbad water before breakfast. Walk one and one-half hours between breakfast and luncheon. Walk one and one-half hours between luncheon and supper. At Carlsbad it is customary for the patients to drink the water while out walking.

Massage: One hour massage and resisting exercises daily.

Liver and Gallbladder Diet

Eat slowly and chew thoroughly.

Breakfast.—Coffee, tea, cocoa or milk (sugar sparingly). Rolls, toast, zwieback, graham or whole wheat bread (butter sparingly).

Luncheon.—Soup: Bouillon, oyster broth, vegetable, tomato or chicken (fat to be skimmed off) or a thin puree, with a little bread or crackers.

Meat: Lean beef, fowl, lamb, veal or ham (boiled, broiled, baked or steamed) with all fat removed, or fresh fish, except salmon, mackerel, eels or herring, (eat all sparingly), sweetbreads.

Vegetables: Spinach, brussels sprouts, cauliflower, asparagus, turnips, stewed tomatoes, green corn, eggplant.

Salads: Lettuce, tomato or cucumber, with French dressing if desired.

Starchy foods: Moderate quantity of white or sweet potatoes (boiled, baked or mashed) or noodles, macaroni, rice, (bread and butter sparingly).

Desserts: Bread, farina, rice or cottage pudding; apple, peach or cherry pie.

Fruits: Raw—apple, peaches, pears, oranges, plums, cherries, pineapple, grapes, bananas (sparingly); stewed—apple, prunes, cherries, pears, apricots.

After luncheon the patient should lie down on the right side for at least one hour.

Afternoon tea.—Tea, coffee or milk, with zwieback, toast or light cracker.

Supper.—Meat, warm or cold: lean beef, veal lamb, tongue or ham with all fat removed.

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[2] Carlsbad Sprudel or Mühlbrunnen water is recommended. This may be fortified with a teaspoonful of the genuine or artificial Carlsbad salts.

[3] Some physicians permit the use of eggs. Where hypercholesteremia exists it is better to omit the eggs.

Vegetables: Starchy foods and stewed fruits as at luncheon. Small portion of cheese permissible. Bread and butter sparingly. Water or carbonated water.

It is advisable to eat a light supper before retiring.

Articles Strictly Forbidden

Eggs, peas, beans, lentils and all dried leguminous foods; rich soups, gravies and sauces, sweet cream, fried foods of all kinds; meat extracts, curries, fat or preserved fish or meat; rich pastries, cakes or puddings made with eggs; pepper, spices, Worcestershire or other sauces; pickles, mustard, radishes, onions, watercress, celery, malt liquors or wines; all iced drinks and all foods likely to cause flatulence.

Gallbladder Diet

Breakfast. — A stewed fruit: prunes, apricots, peaches or apples.

Cereals: Farina, wheatena or pettijohn with skimmed milk and very little sugar. Toast, rolls, graham or whole wheat bread with little butter.

Tea: Clear and warm.

10:30 a.m.—Biscuit or zwieback.

Luncheon.—A puree or chicken broth, vegetable soup or bouillon (no fat or spice).

Meat: Poultry, lamb, beef, ham (no fat).

Fish: Sparingly, avoid fat variety.

Vegetables: Spinach, brussels sprouts, cauliflower, asparagus, turnips, stewed tomatoes, green corn, eggplant.

Desserts: Plain puddings, bread, tapicoa, rice, stewed peaches or apricots.

Drink: Vichy, warm water.

4:00 p.m.—Malted milk, cracker or rusk.

Dinner.—Cold meats sparingly: tongue, chicken, lamb, beef, ham (no fat).

Vegetables: Two as at noon.

Dessert: Bread and cheese or fruit, hot tea to drink.

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LET'S TALK ABOUT WATER

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The forcing of fluids in every acute condition should be condemned. The withholding of fluids in all acute conditions would be far less scientific. The purpose of this article is to urge that more thought be used, before either restricting or forcing fluids.

Because many people, as well as most doctors, believe that the more water taken the better for the individual; that many diets include the drinking of eight to ten glasses of water in addition to that taken at mealtime, and that the forcing of fluids before and after operations, is a universal practice, the greater part of this paper will be on water restriction.

Let no one infer that I do not realize the value of water in many conditions and the rapidly serious consequences of a total loss of fluids. When I believe that forcing fluids is indicated and the patient refuses to drink the desired amount, I have found that the use of atropine will increase thirst.

Much has been written on the value of forcing liquids, but one with an inquisitive trend of mind wonders what reaction there will be in a person requiring approximately a quart of liquid a day, if he is given three or four quarts. What good or what harm will the additional amount do?

Almost everyone believes that the drinking of water washes out poisons. (Just what poisons they do not explain). People then assume that the more they drink the more poisons will be eliminated from their bodies. Granting that forcing liquids will carry out poisons, one should also admit that this extra water will also carry out any minerals that are water-soluble. Thus the forcing of fluids will tend to demineralize the body and thus bring about a mineral unbalance.

Indications for Water Restriction

A few conditions that I believe can be more successfully treated by the proper use of fluids in addition to my usual treatments are listed below:

1. *Nervous conditions.*—These include epilepsy, sleeplessness, dreaming, night walking, etc. Examine the urine in these cases, and it will usually be found that the specific gravity is 1.010 or lower. By withholding fluids, especially after 6 p.m., and reducing the salt so that the patients are not so thirsty, many of them will have no more difficulty.

2. *Headache.*—Every physician is familiar with the fact that the weakest bloodvessels in the body are usually in the brain. It is for that reason that apoplexy is a quite common occurrence. Can it be true that these same bloodvessels in younger persons will distend when the cardiovascular system is overfilled and thus by pressure on the surrounding brain tissue cause headache? Water restriction is all that is required for a permanent cure.

3. *Major operations.*—Most surgeons in the so-called preparation for operation require the preoper-

ative drinking of large amounts of fluids. For the past five years I have allowed patients to drink only when thirsty. As a result of this procedure I find my patients requiring less anesthesia. There is far less sweating following the operation. The pulse does not increase so much as formerly. There is less congestion in the lungs and no pneumonia. There is less trouble with bleeding at the time of operation and the amount of postoperative vomiting has been materially reduced. In addition the operative wound is not edematous when examined the following day.

Following operation a pint of plain water by Murphy drip is given and this is repeated six hours later. Should fluid be necessary more rapidly, 300 c.c. (never more) may be given either subcutaneously or intravenously; this is repeated every four to six hours. The giving of larger amounts of fluids by the two latter methods I believe is often the cause of early postoperative deaths.

4. *Confinement cases.*—In normal cases the moderate restriction of fluids during the last two weeks of pregnancy will reduce the weight of the infant, and allow the head to mould more easily. The vulva will not be edematous, and as a result labor is much easier. The baby will be back to his birth weight by the third day and by the tenth day show considerable gain. The postdelivery bleeding seems to be lessened.

5. *Otitis media.*—Every text book admits that the closure of the Eustachian tube is the cause of this condition. Then the treatment should be an attempt to reopen this passage, and in addition to routine treatment, fluids should be restricted entirely and the patient instructed to open his mouth as wide as possible many times, as this movement is the natural one for opening the Eustachian tube. The water restriction will remove the edema, so that it is rarely necessary to incise the drum.

6. *Acute sinus conditions.*—The withholding of liquids in this condition will remove the edema. Only a few packings of the nose will be necessary, and if fluids are restricted, the condition rarely recurs.

7. *Hemorrhoids.* — Hemorrhoids are distended veins and the majority of my hemorrhoid patients are heavy users of various forms of liquid. Remarkable improvement will be seen in all except the thrombotic variety by withholding fluid in addition to the usual treatment.

8. *Kidney disorders.*—If the specific gravity of the urine is 1.010 or less, fluid is restricted. Most physicians try to force fluids in these cases. Just why any damaged organ should be made to work more is not explained. If rest is good for other organs, why should "rest" for the kidneys be excluded? A large clinic now says "acidosis" will cure many of these cases.

9. *High bloodpressure.*—In high bloodpressure, the withholding of water has provided various results. In some cases the fluid restriction has markedly lowered the bloodpressure, but in a few cases it has had no effect. Whether high bloodpressure is caused by the washing out of certain minerals and the retention of others which are not soluble is a problem worthy of further investigation.

10. *Cerebral accidents.*—The profession is almost united in the belief that fluids should be restricted in all cases of concussion or fracture of the skull. In these cases I have seen fluids given to combat shock, a procedure which must be condemned. Heat, complete water restriction and withdrawal is the correct procedure.

11. *Heart disease.*—All cases of enlarged heart or cases with edema require a careful water balance in addition to the usual therapy. The smaller amount of liquid in the cardiovascular system will relieve the "tightness" under the sternum and give the heart muscle less work. The cyanosis disappears and also the pulmonary congestion.

12. *Obesity.*—Careful attention should be paid to water intake in these cases. Not only the amount but also the time it is given. Food taken into the intestinal tract must have some solvent before it can pass through the intestinal wall and then into the blood stream. The obese should therefore be instructed to drink no fluids with meals or for three hours after meals. Dry foods are hard to swallow so that food intake is also cut down. Fluids should be taken by obese people one hour before meals. Those desiring to put on weight should do the direct opposite. No fluids should be taken between meals so that the system needs liquids; after eating, drink. The body in absorbing the needed liquids will by necessity carry with it the dissolved foods.

Salt Reduction

In addition to the withholding of liquids, I have found it a distinct aid to withhold salt, as this cuts down thirst. However, one must be careful in salt reduction, in order not to produce cramps in the legs.

When restricting fluids in certain severe heart cases, I have been impressed with the fact that the thirst will be most complained of from the thirty-sixth to the forty-eighth hours, and following this thirst seems to diminish even though no fluids be given.

An interesting case showing that water is not so essential to health as a majority of writers would make us believe is that of Mrs. C. R., aged sixty-four, who has not been able to drink water since a young girl because she develops what she calls water brash. During the past fifty years, her liquid has consisted entirely of milk and fruit juices and an occasional cup of coffee. She has never had any serious organic trouble and has worked hard her entire life.

Every physician whether he believes in forcing liquids or withholding them should perform this simple experiment upon himself. For twenty-four hours, restrict fluid intake to about one pint. The water in foods is disregarded except for soup, orange juice, milk, etc. Then the following day, force fluids the entire day, being sure to drink several glasses just prior to retiring. Compare your night's sleep, your energy during the day, etc., and thus draw your own conclusions.

Summary

In closing, let me repeat that every physician should force fluids or restrict fluids only after a careful consideration of each case. The routine use of fluids by forcing or by restriction is to be condemned. Restriction I have found to be beneficial in the following conditions: nervous conditions, headache, major operations, confinement cases, otitis media, acute sinus conditions, hemorrhoids, kidney disorders, high bloodpressure, cerebral accidents, heart disease and obesity.

SUCCESSFUL TREATMENT OF CHRONIC ULCERATIVE COLITIS WITH DIETARY AND CALCIUM THERAPY

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Medical literature contains numerous reports showing recovery of patients suffering from chronic ulcerative colitis treated with dietary and calcium therapy used separately. A search of the literature, however, has revealed no report of these two forms of therapy used together. In view of this and the superior results that can be obtained, attention should be directed to this combination. The following case is illustrative.

Case Report

Case.—The patient, a white female, aged twenty-two years, was first seen April 2, 1933. From January 1932, the onset of her disease, up to April 2, 1933, she became progressively worse. During this period five different doctors subjected her to a wide variety of medical treatments including blood transfusions, vaccines, emetine, intravenous mercurochrome, and the Moro-Heisler apple diet. Ileostomy was advised by three of the doctors. But the patient preferred to die rather than submit to a very discomforting and uncertain operation. On April 2, 1933, dietary and calcium therapy was started. Within four weeks the patient was well. There was a slight recurrence on October 15, 1933, but this was promptly checked within two weeks by the same treatment. Since this last attack the patient has disclosed no evidences of a chronic ulcerative colitis. The essential features of the treatment and its effects are shown in the table.

Comment

Although it has never been proved that chronic ulcerative colitis is a deficiency disease, still vitamin deficient diets have produced a strikingly similar condition in experimental animals (1). Vitamin rich diets have long been regarded as effective in the treatment of chronic ulcerative colitis (2). The markedly increased nervous and muscular irritability present in this disease is thought to be of importance in preventing healing (3). Bearing this in mind, the diet should be poor in sodium, potassium, phosphate, and bicarbonate; and rich in calcium, hydrogen, and magnesium. For muscular and nervous irritability is increased by the former and decreased by the latter. Liver extract is added to combat the anemia. Good results have been claimed with the use of liver extract in the diet in chronic ulcerative colitis (4). A diet similar to that in the table has recently been advocated by Bernheim (5).

Hydrochloric acid is administered to stimulate gastric secretion. It has been found that patients with chronic ulcerative colitis suffer from a depressed gestric secretion and often show an achlorhydria (6). Bertervide and Casaffousth even believe that achylia gastrica is an important etiological factor. They noticed improvement following the use of hydrochloric acid (7).

Calcium therapy, using ammonium chloride, calcium gluconate, and parathormone has been employed with favorable results in chronic ulcerative colitis by Cantarow (8), Weigand, and others. These results were probably due to the sedative action on nervous tissue, the antispasmodic action relaxing the bowel, the favorable influence upon hemorrhage, and the stimulation of body resistance.

Furthermore, it should be mentioned that each one of the above constituents of the treatment was subjected to clinical trial alone and in different combinations; but the most striking relief was obtained with dietary and calcium therapy combined as shown in the accompanying table.

Dietary and Calcium Therapy
135-Pound Patient

1. Dilute hydrochloric acid, two teaspoons in one-half glass of water before meals three times a day, taken through a glass tube.
2. Liver extract with iron (Lilly No. 55), one level teaspoon in eight ounces of strained orange juice three times a day during meals.
3. Diet:

Breakfast

Three glasses of milk (boiled two minutes) or butter milk (twenty-four ounces).

Four ounces of cheese (American Cheddar).

Applesauce sweetened with molasses (ordinary helping).

Lunch

Three glasses of milk.

Four ounces of cheese.

Whites of two eggs, coddled.

Five ounces of lemon or grapefruit juice sweetened with molasses.

Applesauce, carrots or cauliflower well cooked and put through a fine sieve.

Dinner

Eight ounces of tomato juice (strained canned) plus any other bland foods desired such as: steamed rice, baked potato, cream of wheat, eggs, cocoa, toast bread and butter.

Bland dessert such as: egg custard, junket, gelatin, puddings, ice cream.

Viosterol 250 D, twenty-five drops.

4. Ammonium chloride three and one-half grams in capsules one-half hour after meals followed in

one to two minutes by three and one-half grams of calcium gluconate (Squibb) suspended in one-quarter glass of water three times a day.

5. No more salt than is naturally present in the foods.

6. Plenty of time allowed for meals.

7. Treatment continued four to eight weeks.

8. If response is not satisfactory in two to three weeks, add parathormone to the treatment, thirty to forty units subcutaneously every two to three days.

9. The diet: rich in vitamins, calcium, hydrogen and magnesium; poor in sodium, potassium, phosphate and bicarbonate.[1]

10. The hydrochloric acid and ammonium chloride the most likely to cause trouble. Overdosage indicated by nausea, vomiting, drowiness, mental cloudiness, and albuminuria. Reduce dosage.

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[1] See Sherman's *Chemistry of Food and Nutrition* for food composition tables, p. 576, 1927.

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THE HIGH PROTEIN DIET

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The high protein diet is now a well established therapeutic measure in diabetes, pernicious anemia and diarrhea. Whether this type of diet is detrimental to the renal and vascular system is of importance to the clinician, and if such is the case it is of interest to know its limitations.

The high protein diet will be considered in this paper from the viewpoint of (a) normal protein intake, (b) limitations in human beings, and (c) dangers in the well and in the sick.

Normal Protein Intake

There are two methods of approach in arriving at the normal protein consumption, the statistical and the experimental. The statistical is the older and dates back to 1881 when Voit published in Germany the first serious work in this field. He decided that 119 grams of protein was the average adult intake. Later Atwater, in America, believed 125 grams a better average. Many and varied statistical compilations have since been made but the Voit and Atwater standards are the most generally accepted.

Chittenden in 1904 concluded from experiments that a healthy adult male doing a moderate amount of muscular work could keep in nitrogen balance on levels of 0.093 to 0.171 grams of nitrogen per kilo of body weight. Chittenden's experiments were made possible by the original work on protein metabolism of Bischoff and Voit. Realizing that excess protein was not stored up by the body but rather was quickly excreted as nitrogen, Chittenden made an effort to find out the least amount of protein a normal adult male at moderate exercise might use in his diet and still meet the protein needs of the body.

Limitations in Human Beings

Chittenden's work is generally accepted today as the minimum protein intake, although he proposed it as the optimum. The consensus of opinion now is that this amount of protein in the diet is too close to the subnormal to be safe. So to leave a margin of safety it has become common practice to use a gram of protein per kilo instead of the 0.6 gram as advised by Chittenden. The upper limits of protein ingestion are, in the main, regulated by the individual's capacity for food together with his willingness to confine himself to protein. The best known groups of mankind that live exclusively on a flesh diet can be found among the Eskimos of the Arctic.

Stefansson, an anthropologist who has spent a considerable part of his adult life as an explorer in the Arctic, has given us much valuable information on the Eskimo's diet. He confirms the reports that many northern Eskimos live from childhood to the end of their days on a pure flesh intake. He states that caribou, seal or fish is eaten according as the country produces it. He also stresses the fact that fat, taken in amounts close to our habit, forms a constant and apparently indispensable part of the diet.

Captain Bob Bartlett, another famous Arctic explorer and seafarer, thinks that a fair average for the Eskimo is a little over a pound and a half of meat a day, but on special occasions might take in as high as eight pounds.

Accurate studies were published in 1913 by Krogh and Krogh. They concluded that the Eskimo's daily intake was 280 grams of protein, 140 grams of fat and 54 grams of carbohydrates.

Thomas in 1927 and Heinbecker in 1928 reported excellent scientific studies of the metabolism of the Eskimo. The latter in speaking of the food intake of the natives stated that when meat was plentiful it was not uncommon to see from four to eight pounds a day ingested.

There is ample proof that others beside the Eskimo can live for long periods in the far north on exclusive flesh diets. Stefansson himself is an excellent example. He has lived over eleven years within the Arctic Circle and has been for nine and a half years of this time on an exclusive meat diet. Nine months had been his longest single stretch. Stefansson states that it does not matter what a man's race or previous habits may be; he has found on trial that as soon as a man gets over the mental bias, he is as physiologically adapted to an exclusive flesh diet as is the Eskimo.

That a white man can live on an exclusive meat diet in the temperate zone for at least one year was shown by DuBois when he kept Stefansson and Anderson continuously throughout a winter and a summer in New York City on such a diet. Stefansson consumed 0.81 kilograms or about one and three-quarter pounds of meat in a day, while Anderson's intake was 0.79 kilograms or a shade under one and three-quarter pounds. Tolstoi, an associate in this study, estimated the diet as consisting of 120 grams of protein in a 2600 to 3000 calorie range. Lieb, the earliest medical observer of Stefansson, quotes two cases in his private practice, the subjects evidently living around New York City and more than likely born in this or a similar climate. They on their own choice lived on practically an exclusive meat diet for a period of several years. One man, forty-five years old, lived on practically nothing but beefsteak, three times a day, and he never took any exercise. The other man, fifty-five years of age, had no complaints.

Liebig in 1870 said that it was well known that hard working men eat much meat. He then stated the case of a brewery worker who consumed daily 810 grams of meat, 600 grams of bread and eight liters of beer. The protein content of that amount of meat was probably about 162 grams while that of the bread was in the neighborhood of 52 grams. This would make a total daily protein intake of 214 grams.

Newburgh, Falcon-Lesses and Johnston reported in 1930 keeping a young American laboratory worker for six months on a diet high in beef muscle and liver. The protein content is the highest intake I have encountered in the literature where the experiment was carried on for more than a few days. It amounted to 337 grams a day and was practically all of animal origin.

There have been numerous other experimental procedures with high protein diets on record but they have been for a few days only, so of too short duration to be of value in determining the upper limits of protein ingestion in man.

As stated by Heinbecker, Eskimos sometimes eat as much as eight pounds of meat in one day. On such occasions they ingest about 8000 calories in the day and get about 750 grams of protein and perhaps 375 grams of fat. What is true of the Eskimo is probably true about the Indians of the Pampas and earlier North American Indians.

White men in the Arctic get along well on the Eskimo's regimen and they also can live in the temperate zone on the same diet if they care to. Hard working men frequently take in large quantities of protein—214 grams a day in Liebig's case—but the usual ratio between the foodstuffs is about the same as normal.

Most of the civilized world naturally ranges between one and two grams of protein per kilo of weight per day. The Eskimo runs along on four grams per kilo though he gets days where it reaches twelve grams per kilo. We could then consider one to two grams of protein per kilo as the normal range in man with two to four grams as high and four to twelve grams excessively high, but within human consumption.

Dangers in the Well and the Sick

Since the time of Bright the protein of the diet has been the most important consideration in the treatment of all cases of nephritis. Furthermore, it has been generally held as the etiological factor in some cases of kidney breakdown. The main reason for this belief is that protein in the form of albumin is the cardinal sign of nephritis and so it has been suggested that the kidney loses its ability to withhold the blood proteins as the waste matter is excreted. It is then argued that the less protein the kidney has to deal with, the less albumin will be in the urine and as the protein of the diet is the source of the body protein, it should be lowered and the body should live on a carbohydrate and fat diet.

Bischoff and Voit established the fact in 1860 that the urea in the urine was an end product of protein metabolism and that it varied in direct proportion within certain limits with the protein intake. This added strong evidence to the theory that the kidney was the organ most concerned with the waste products of protein metabolism, that an excess of such products might injure the kidney, that a pathological kidney did not excrete the normal amount of waste and that the protein intake should be kept within certain bounds in the well and lowered to perhaps zero in the nephritic.

Furthermore, the comparatively recent finding that urea and other end products of protein are retained in the blood in some cases of kidney disease carried to a still firmer basis the idea that protein metabolism is closely related to kidney function.

So we have had for over one hundred years stronger and stronger reasons for believing that the protein of the diet might be harmful to the kidney under certain conditions. Yet, notwithstanding its long and excellent background, the theory that a high protein diet is detrimental to the kidney both in health and in disease now seems due for some modification. In the last twenty years considerable data have been collected from clinical and experimental sources which does not allow us to accept this theory in its entirety.

We might briefly consider some of the recent findings of the effect of high protein diets on the normal kidney. Our first thought, therefore, turns to the Eskimo who has carried on for an indefinite number of generations with a high protein diet. He has been well studied by competent observers and the consensus of opinion is that there is no greater evidence of kidney disease in that race than there is in races eating between 75 and 150 grams of protein a day.

The Eskimo does develop nephritis, however, but merely in the same proportion as other races. We would naturally conclude, then, that the same factor brought about the nephritis in both the Eskimo and the white, and that high protein diets, the excessive cold, or the prolonged exposure played little or no part. When the native escapes the commonest cause of death, violence, he proceeds on to old age as other races do. His span of life is apparently not affected by nephritis nor is there evidence of excessive morbidity from the same cause. Stefansson and Heinbecker mention excessively large protein sprees in times of plenty, but make no record of any acute nephritis following them.

Superficially, we might attribute the ability of the Eskimo to handle successfully such large amounts of protein to the changes in body metabolism brought about by the subzero environment. This cannot be the reason, as the North American Indians and those of the Pampas, like the Eskimo, died mostly from violence, and to the best of our knowledge gave no unusual evidence of kidney disease.

Neither is this a racial characteristic, as white men like Stefansson and Bartlett have on and off for many years lived the same life as the Eskimo and are today hale and vigorous persons, far from being nephritic. In addition, the studies of Lieb on Stefansson and later those by Tolstoi and by McClellan and DuBois show that white men are not injured by a flesh diet and that they may live on such a diet without danger in New York City. Captain Bartlett has told me that while in the North he has many times eaten eight pounds of meat in one day without the slightest aftereffect.

A large amount of experimental work has been done with the high protein diets in recent years on laboratory animals and on man. The results have been contradictory. Diagnostic criteria for determining nephritis universally applied by the investigators was the presence of albumin in the urine accompanied by red blood cells and casts. Although a urine showing albumin with either red blood cells or casts or both has been for years accepted as a definite sign of pathology in the kidney, some recent observers question the infallibility of this statement.

It is now pointed out that physiological albuminuria are of common occurrence and have been known for years. Albumin up to large amounts is present, while casts and red blood cells occur in a certain percentage of cases. Orthostatic albuminuria can show red blood cells and casts at times. The albuminuria following severe exercise is well known and, as shown by Bachrach in marathon runners, out of nineteen subjects examined directly after the race, nineteen showed albumin and casts while eighteen showed blood. Passive congestion and fevers frequently produce in urine all the elements that go to make the diagnosis of nephritis. Also the manipulation of the kidney by the surgeon is frequently followed by albumin, casts and blood in the urine. With few exceptions the signs clear up shortly after the causal factor is eliminated. Thereafter the subject pursues a normal life and shows no more evidence of nephritis unless the factor reappears.

The line of demarcation between physiological albuminuria and nephritis seems to be the persistence of the signs or the progressiveness of the condition. Urinary signs, without constitutional symptoms, occurring temporarily or even persistently, must be looked at askance. Urinary signs, then, occurring during the ingestion of high protein diets without constitutional symptoms, that clear up shortly after the diet has been returned to normal, should not be the determining factor in estimating the advisability or inadvisability of using high protein diets.

High protein diets, especially those consisting of a preponderance of red meats, have been held for a long time an etiological factor in the constitutional changes that are frequently associated with nephritis, that is, cardiovascular disease and hypertension. Krogh and Krogh contended that the diet of the Eskimo created no renal irritation. Stefansson, the explorer, a trained anthropologist, was not struck by any morbidity or mortality from any form of sickness in the native during the eleven years that he lived in the Arctic. Thomas, after a careful search, found no evidence of an increase in vascular disease nor raised bloodpressures in the Eskimo. Heinbecker said that the nonprotein nitrogen constituents of the blood of the Arctic native was no different from that of other races.

Lieb, in 1922, when he examined Stefansson, showed that a white man could spend a good part of his life among the Eskimos with the same diet and exposed to the same environmental factors without any changes in his vascular system. He gave Stefansson a clean bill of health, reporting a bloodpressure of 115/55. The explorer, in excellent health eight years later, bears further witness to the fact. That this ability to withstand high protein diets was not due to climatic conditions was shown first by Lieb when he reported two of his own patients in New York City who lived exclusively on meat and who showed no cardiovascular disorders. Still more conclusive was the work of DuBois and his group who studied Stefansson and Anderson a whole year while they lived in New York City and ate a moderately high protein diet. No changes were found in the bloodpressure, no rise occurred in the nonprotein nitrogen of the blood, nor was there any other change in the cardiovascular system.

Although Newburgh, Falcon-Lesses and Johnston set out to prove that high protein diets were detrimental to the kidneys of normals, and they so concluded from their findings, they have at the same time shown that excessively high protein diets fed to a normal, young adult for six months and living in this climate had no effect on the bloodpressure or on the vessels of the retina.

Hence a careful study of the Eskimos, a race that lives on a high protein diet, fails to show any unusual percentage of cardiovascular diseases. Likewise, a careful study of white men living under similar conditions for a long period, showed no degenerative changes. White men in New York City have carried on with a high protein diet for a long time without detriment and a white man in Michigan was none the worse after six months of an excessively high protein diet.

Effect of High Protein Diets on Nephritis

As brought out by Mosenthal, there are few reports on the effects of high protein diets in nephritis. The earliest report was that of Epstein who in 1917 reported a form of nephritis that responded well to an increase in the protein diet. He proposed a high protein, fat free, carbohydrate poor diet, as follows:

Protein, 120-240 gm.; fats (unavoidable), 20-40 gm.; carbohydrates, 150-300; fluids, 1200-1500 c.c., food value, 1280-2500 calories. Sufficient salt to render the diet palatable.

Popischill and Weiss in 1911 (quoted by Mosenthal), McCann in 1931, and Keutmann and McCann in 1932 also reported on the use of high protein diets in the treatment of nephritis.

The first of these, published in Germany, deals with the experience of the authors in feeding 1186 patients suffering from scarlet fever with a large amount of meat and meat soup. The same number of controls were fed on a lactovegetarian diet. Surely observations based on such a large number of cases with an equally large number of controls must carry weight. According to these authors the group of patients who ate the high protein diet had better results than those that took the lactovegetarian diet. McCann's experience led him to believe that protein starvation might come from other ways than the reduction of the protein diet. The daily quota for the "wear and tear" of living in health as well as disease must be met, also the loss of protein during the albuminuria of kidney disease. He concluded that liberal protein intake of itself does not injure the kidney. He noticed that when low protein diets in nephritis are raised to a liberal protein intake, there is some time before the nitrogen of the urine is increased. This, McCann thinks is due to a protein starvation of the tissues and is a forerunner of edema. He believes that the disease is benefited by the avoidance of this starvation state in the tissues.

We have evidence to believe, then, that the incidence of nephritis in scarlet fever was less when the patients were fed high protein diets than when fed a lactovegetarian diet, showing that the protein does not figure as an added burden to the kidney but really acts as a beneficial stimulus to the body metabolism. We also have evidence that in nephritis under the prevailing restricted protein diets there is frequently a protein deficiency of the tissues which may, at times, cause a protein starvation with a picture similar to the "hunger" or "war" edema recently well defined. There is also a small amount of evidence at hand that at times chronic Bright's disease can be treated by high protein diets in some cases, to the benefit of the patient.

As the literature on the high protein diet, pro and con, is so extensive we could hardly cover it in an article of this scope. The conclusions arrived at by recent reviewers may, on the other hand, be a good guide to the trend of thought relative to the high protein diets. It might be said that Allen, DuBois, Mitchell, Bischoff and Mosenthal disagreed with Newburgh.

Summary and Conclusions

To sum up the data presented in this paper we might begin by saying that the high protein diets have a definite place in therapeutics and that besides the indications heretofore mentioned they may be used to good advantage in many cases of nephritis. Next we can consider the normal protein intake to be a range from 70 to 150 grams a day or from one to two grams per kilo of body weight. This would define a high protein diet as one that exceeded 150 grams of protein a day or two grams of protein per kilo. When the protein passes 200 grams a day or three grams per kilo, it might be termed excessively high. We can conclude that the protein intake in human beings has a definite minimum. This is put at 0.6 grams per kilo or forty-two grams for an average man. Such a figure represents the lowest intake that will retain the nitrogen balance. That the nitrogen balance is necessary to observe is well accepted today. At present, however, the idea that it is best to keep the protein of the diet down to the lowest amount that will preserve this balance is not well received. This minimum protein diet may be used as an emergency measure in certain cases of nephritis where there is retention of protein end products in the blood. But, in the majority of cases nephritis and in the normal individual especially, if continued for some time, it is an unnecessary restriction and may produce partial starvation with its complications. Instinct, except where environment and poverty interfere, chooses about 125 grams of protein a day for a healthy adult. That over half of this is lost by way of the excretory organs, largely the kidney, as protein end products, seems to be the natural phenomenon.

The advisability of an excess of protein in the diet over and above the minimum needs is becoming more apparent as we recognize the possibility of a hormonal action of the protein and the definite part it plays in the balance between the foodstuffs. The upper limits of protein ingestion are not clearly defined. Environment, expense and the presence of other agreeable foods help to keep the intake within certain limits. Man can take on occasion 750 grams of protein in a day without great discomfort and might even exceed this figure were he so inclined.

The dangers of high protein diets in the well are negligible. The Eskimos, the white men in the North, and the white men of New York City, all on a high protein intake for a prolonged period, gave no sign of injury therefrom. Unfavorable reports of the high protein diets have been predicated on the assumption that red blood cells in the urine were a positive sign of renal damage. Everybody does not accept that premise today.

The high protein diets appear to be beneficial in all cases of nephritis except those that show a retention of the protein end products in the blood.

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THE PREOPERATIVE AND POSTOPERATIVE THERAPY OF PEPTIC ULCER CARE*

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The general principles that underly preoperative and postoperative therapy should aim to place the patient in as good condition as possible to withstand the surgical procedure; to prevent complications and to combat complications should they arise. Special measures and modifications of general principles may have to be used to meet the individual requirements of each case and of each class of cases.

Thus, in cases of resection for peptic ulcer, we have to deal with a patient about to undergo an operation of more than ordinary severity and who, because of his condition, presents certain definite characteristics. These are brought about by a chronic impairment of digestive function; by virtue of having been on a very restricted type of diet—usually for a long time; by over-alkalinization; by continued gastric retention and often by hemorrhage. The hemorrhage may be characterized by a single massive loss of blood or by a persistent and continuous loss of very small amounts from the ulcer surface.

Preoperative Therapy

Rest in bed for about two days before surgery is advisable. A complete laboratory inventory is made during this time, and appropriate measures employed to combat any discovered pathology. The chemical blood analysis guides us in determining whether the patient is a relatively favorable risk or whether the operation should be delayed until the patient's general condition is improved.

Where the blood sugar is elevated it must be reduced to safe limits—say 80 to 120 mgm. per 100 c.c. of blood, either with insulin or diet. If the nonprotein nitrogen and the creatinin are normal there is no cause for delay, even if the urine should show a slight trace of albumen and a few casts. A complete blood count and hemoglobin estimation is made. A severe anemia is indicated by a red cell count of 3,000,000 or under with a corresponding decrease in hemoglobin to about fifty percent or lower. When this is present a blood transfusion is indicated. In any event the patient's blood should be typed, so that if transfusion should become necessary postoperatively, no time would be lost in the selection of a donor. If the patient is a bleeder the clotting time by the capillary method is determined. When it is more than seven minutes, ten c.c. of a ten percent solution of calcium chloride is slowly injected intravenously, the day before and the day of the operation. Transfusion is also an excellent method to improve the clotting time.

To overcome dehydration and to improve kidney function, fluids in large amounts should be given, either by Murphy drip or intravenous infusion. I much prefer the latter method. Up to 3,000 c.c. may be given a day, but very slowly. If the cardiac apparatus is not able to tolerate a large amount at one time, 500 c.c. or less in several sessions may be given. Normal saline is ordinarily employed, into which three to five percent glucose may be introduced. This is done even in the presence of a hyperglycemia with, of course, the appropriated exhibition of insulin.

Preoperative cathartics tend to distort peristalsis and the griping effect may be delayed so as to disturb and make uncomfortable the immediate postoperative course. Therefore, they are not usually given. If there is a special indication for a cathartic it should be given about three days before surgery so that its entire effect is spent before the operation; and the subsequent diet kept appropriately low.

The lower bowel should be cleaned out with an enema (simple soap and water) both the day before and the day of operation. The removal of toxic material is especially desirable in a patient who is already sensitized. Besides, giving the enema before the operation accustoms the patient to a procedure that will probably have to be performed postoperatively. The same applies to gastric lavage—the last to be given with an alkaline solution until the return is clear, immediately before operation. No attempt is made to "sterilize" the gastric mucosa.

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*From the Surgical Service of New York Post-Graduate Hospital, Dr. Charles Gordon Heyd, Director.

Read on October 24, 1934, in the New York Post-Graduate Hospital, before the clinic on Peptic Ulcer, held in connection with the Seventh Annual Graduate Fortnight of the New York Academy of Medicine.

The matter of a patient's mental reaction next claims our attention. In the patient with any imagination, the prospect of facing an operation must occasion a train of tumultuous reaction. In order to insure a smooth surgical course, it is advisable to dull the sensorium with some sedative drug. A short course of one of the barbiturates for several days answers the purpose. In our own experience we have found that one-quarter or one-half grain doses of luminal, given four times a day, are very satisfactory. Nor do we hesitate to use morphine preoperatively, in exceptional cases. Of course, certain variations have to be made when using special types of anesthesia.

Postoperative Therapy

Postoperatively the immediate concern is to make the patient more comfortable. At this stage of the procedure morphine must not be spared; one-sixth or one-quarter of a grain is given by hypodermic every four hours as a p.r.n. order. This is given not only for pain but for excessive restlessness throughout the first day. Beginning the second day we like to give one grain of sodium luminal by hypodermic every six hours. This effectively dulls the patient's sensibilities and makes him indifferent to small annoyances. We do not like to continue the use of morphine beyond the time of its absolute necessity as an anodyne, because we feel that it is often responsible for intestinal paresis and urinary suppression. We have found that when a patient is calm, even semisomnolent, there is not nearly as much distress from dreaded gas pains.

To detect concealed hemorrhage, during the first five hours the pulse is taken and recorded every half hour. Hemorrhage is indicated by excessive thirst, a clammy skin and a mounting pulse rate with early symptoms of shock. A blood count would show a decrease in the hemoglobin and the red blood cells. Treatment for hemorrhage should be first to remove clots from the stomach. This is done by gastric lavage. Of course, care must be exercised in the use of the tube so as not to traumatize the suture line. There should never be more than four ounces of fluid instilled at one time. Calcium chloride, ten c.c. of a five percent solution intravenously is given and after desensitization horse serum may be used. Transfusion with small amounts, about 250 c.c., of whole blood is often helpful. As a last resort reopening of the abdomen is performed.

For drainage of the stomach and general comfort of the patient, the head of the bed is elevated on blocks to an angle of 30° to 45°, as soon as reaction from the anesthetic is complete.

To replace fluids and allay the sense of thirst, an intravenous infusion is started as soon as the patient reaches his bed; given by the drip method, one thousand c.c. is administered in an hour. I find that when oral feedings are contraindicated the most satisfactory way to give fluids is by the intravenous route. If given slowly with proper aseptic precautions, there is no danger from either cardiac strain or infection. Unless the patient has a special nurse who can constantly regulate and readjust the position of the tube, rectal feedings are unsatisfactory. The preparation of the glucose solution must be performed with the greatest care, under the most aseptic conditions and properly buffered. It is my opinion that in every case in which there is a reaction following an intravenous infusion, the trouble can be traced to improper preparation of the solution used.

So as not to induce vomiting nothing is given by mouth for about the first twelve hours. An excellent way to maintain a normal peristalsis is to give one ampoule of pitressin by hypodermic, every six hours for three doses. In the light of recent experience, several doses of pitressin are also given preoperatively to obtain the same effect. Vomiting is one of the most distressing immediate postoperative complaints. It may be caused by a reflex mechanism, by irritation of the gastric mucosa or intestinal obstruction of varying degree, ranging from a mild adynamic ileus to a definite mechanical stoppage. This latter, fortunately, is a comparatively rare occurrence. With the advent and wide use of the Levine tube, we have an effective means to combat gastric dilatation and intestinal ileus. I know of no single therapeutic measure which has saved more lives during the postoperative course than the use of the Levine tube. Through the tube itself gastric irrigation may be effected. With the tube in place the patient may swallow fluids which will find an exit through the tube. This allays the sense of thirst which is so distressing, and at the same time tends to act as a continuous gastric lavage. The tube must be clamped off for short periods during the day, as for example, one-half hour out of every two hours, in order to avoid alkalosis by complete loss of hydrochloric acid due to continued drainage from the stomach.

For the relief of abdominal distention the use of a rectal tube will occasionally suffice. The most effective treatment in conjunction with the rectal tube is the administration of low enemata of various combinations, such as milk and molasses, turpentine or bicarbonate of soda solution. I have recently used with success, in addition to pitressin which I referred to above, an intravenous injection of two hundred c.c. of five percent saline solution. The expulsion of flatus and the restoration of intestinal tonicity are prompt.

Diet

The diet is never forced. The patient is allowed to eat as little as he wants and smoking is permitted as soon as desired. The usual routine followed in stomach cases is:

After twelve to fourteen hours, fluids in one to two ounces, q. one-half to one hour. *No fruit, no milk, no ice water.*

Second day: Add milk in any form, albumen water, oatmeal water and thin gruels.

Third day: Add custards, junkets, strained gruels with cream and sugar.

Fourth day: Add toast softened with milk, cereals, gruels, egg.

Fifth day: Add double baked potato with butter, puree of beans or spinach and cream soups.

And after: Add those foods that can be finely divided except red meats.

A cathartic is given after the third day. In the event of a smooth recovery, the sutures are removed from the eighth to the tenth day, the patient is out of bed on the twelfth day and home on the fourteenth day.

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BUTTER IN PSORIASIS

With Report of Cases

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A few years ago I reported the satisfactory use of butter in psoriasis in about ten cases, then there followed a period when no cases were seen, but recently three cases turned up and in two of them treatment has just started.

Psoriasis, like xerophthalmia, rickets, scurvy, beriberi, pellagra, and so on, may be a deficiency disease in which the vitamin in animal fats is lacking, just as proteins are lacking in pellagra.

Psoriasis occurs most frequently in the spring, when butter is the scarcest especially among poor people, and it also occurs more frequently among poor people who are not able to buy butter.

Despite a few authors, I doubt if there is any more syphilitic background to this disease than to any other disorder.

Case Reports

Case I.—In October, 1934, a boy about seventeen years of age came in with red spots over his body, but the typical scales had not yet formed in very great abundance. It certainly looked like a typical case of psoriasis in spite of the usual scales being scattered. He and his landlord had fallen out and he had not had butter nor milk for a few months. They became reconciled and he was put back to milking cows and got plenty of butter and milk in return. The spots and scales disappeared in a short time.

Case II.—A four-year-old child was seen with a considerable amount of psoriasis on his arms, back and legs. He was a petted boy who generally ate what he pleased and didn't care for butter but had a tooth for sweets. The mother started him on butter by cooking it with his food and using cream in his cocoa, etc. His family informs me that he is improving.

Case III.—A young mother of a five months' old baby was seen with a typical beginning case of psoriasis, and the usual history was given of a diet in which butter was not included. She was urged to eat as much as two pounds of butter a week. The drain of her baby on her surplus of animal fats will be heavy, but I anticipate a recovery in six weeks provided her "easygoing" husband provides the butter.

ON DIET

To many people, the word "diet" means some form of restrictive alimentation. In the more general sense it refers to the course or manner of living. All individuals, well or sick, select the diet most suited for them, depending on place, taste, inclination, and opportunity. In his section on Custom of Diet, Burton in his *Anatomy of Melancholy,* says: "We drink beer, they wine; they use oil, we butter; we in the north are great eaters; they most sparing in the hotter countries; and yet they and we following our own customs are well pleased." The art of eating, for the epicure or the unfastidious alike, includes selection of food on the basis of taste, variety, and quantity. The science of eating, and this applies particularly to the use of food as a therapeutic agent, deals with the questions of calories, mineral salts, vitamins, balanced rations, and the like.

The ancient records, as far back as the Hindus in 1,500 B.C., contain advice as to proper diet and regimen. Hippocrates, using plain expedients in disease, recommended simple diets. The Greek physician, Anthinus, about 500 A.D., expressed sound precepts on food-staples and kitchen practices of his time. Garrison says that Beaumont's experiments on the effects of gastric juice on different foods and the relative digestive values of foods laid the foundation of the modern dietetic tables and scales. William Banting in his *Letter on Corpulence,* in 1863, recommended the general reduction of foods in obesity, including fats and carbohydrates. After him came a train of dietetic scientists, such as Liebig, Pavloff, Rubner, Chittenden, Boas, Ewald, and von Noorden, all of whom made specific contributions to the progress of therapeutics.

The combating of food fads constitutes one of the daily tasks of the physician. Milk diets, banana and orange juice diets, vegetarianism, Fletcherism, roughage or whole wheat diets, the restriction of each meal to a separate food principle, and countless other fleeting nations, have their vogues and disappear. Diets are never curealls, and except in specific instances there are no specific diets. "My dinner was noble and enough", said Pepys, which is a good enough statement to cover a wide territory. In disease, the rational prescription of food should parallel the rational prescription of drugs. In health, the instinct of the human race over countless generations has provided a range of sufficient variety and a satisfactory margin of safety. The only caution is gluttony, lest one say with Shakespeare: "My grief lies onward and my joy behind".

Practical Therapeutics

THE USE OF DIOTHANE AS A LOCAL ANESTHETIC IN PROCTOLOGY*

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Any improvement in local anesthetics is a boon to surgery and particularly to surgery of the anorectal regions. Many patients defer operations about the rectum because of the tales of awful suffering that are associated with operative procedures in this locality. Though this suffering frequently is exaggerated in the retrospective narrative, too often the pain *is* of agonizing proportions, especially during and after the first bowel movement following a hemorrhoidectomy.

The general course of the convalescence after the removal of internal hemorrhoids, is that on the day of operation the patient has experienced a great deal of burning pain and discomfort. Usually, the surgeon attempts to make his patient fairly comfortable with morphine, generally given hypodermically. The extent of this pain is not greatly influenced by the type of anesthesia usually used, unless it be caudal, sacral or spinal anesthesia. In the latter, sensation may be rather slow in returning to the pelvic area so that, when it does return, the tissues have partially recovered from their initial reaction to the traumatism. After general anesthesia and after local anesthesia with most of the local anesthetics, pain sets in very early and calls for some sort of sedation. Particularly is this true after the use of novocaine as a local anesthetic. Novocaine has proved itself to be a good local anesthetic, being effective and having a relatively low toxicity. However, when it is used in office procedures, the patient may be suffering excruciating pain even before he has left the office. Many surgeons try to prolong the effect of the anesthesia by combining the novocaine with adrenalin but the result is not always happy.

After the patient is past the first day and night following hemorrhoidectomy, he is very likely to be fairly comfortable until he has the first bowel movement. In the routine used in the Graduate Hospital, this is induced by castor oil on the third day after operation, providing the patient has not had a spontaneous evacuation. The stool passing over the raw surface of the recently operated area, throws the external sphincter muscle into a spasm which further accentuates the pain initiated by the bowel movement and, as a consequence, the patient may remain in agony for several hours. The kind surgeon again may be forced to resort to morphine to tide his patient over this trying period. Subsequent bowel movements will continue to be painful for varying lengths of time, each one becoming less so, as a rule, but it is the first one to which the patient looks forward with so much trepidation and that gives so much dread of rectal operations.

Obviously, a local anesthetic that holds out a hope of prolonged anesthesia, lasting through the first day and sometimes beyond the period of the first stool, is one that will do much to popularize the practice of proctology. If the surgeon can assure his patient that he need not dread the pain after operation, if the patient can assure his friends that he went through this period in comparative comfort, much of the patient's resistance to operation will be broken down and the popular, though often fallacious, argument of the irregular practitioners that they cure rectal ailments without operation will be undermined. Diothane, a drug manufactured by the William S. Merrell Company of Cincinnati, Ohio, holds out such a hope. Curtice Rosser (1) in a recent paper also arrives at the same conclusion.

Diothane is a derivative of phenyl urethane and has the pharmocological name of piperidinopropanediol diphenyl urethane hydrochloride. To quote Clarence G. Bandler (2) it "occurs as dull white, fluffy needle crystals, melting at 195.6°. The crystals dissolve slowly in water to give a saturated solution which, at room temperature, has a concentration of 1.05 percent. Solutions of 1 percent and 0.5 percent have a pH value between 5.1 and 5.6. Such solutions are perfectly stable for indefinite periods when prepared and stored in nonalkaline containers. Alkalies precipitate the anesthetic free base, and minute traces of alkali present in a solution will, in time, lead to a deposition of crystals of the free base." This means that solutions of diothane may not be kept in glass vessels. Drawing the solution into a glass syringe that has previously been sterilized in alcohol may cause the solution to become cloudy but I have seen no evidence that cloudiness from this cause has interfered with the anesthetic properties of the solution.

Rider (3) writes as follows about the drug: "In order to avoid the precipitation of the free base, diothane solutions must be prepared from distilled water and kept in nonalkaline containers such as pyrex glass. If saline solutions are desired, absolutely pure sodium chloride must be added to offset the alkalinity of the less pure salt. When solutions are to be used immediately after preparation, these points are less important since with faint traces of alkali the free base precipitates only after several hours or days.

"Diothane solutions are relatively stable to heat, and in nonalkaline containers may be boiled for purposes of sterilization without loss of anesthetic power. Prolonged heating produces slight chemical changes, which, however, are not accompanied by significant changes in activity or toxicity."

As to bacteriostatic activity of diothane solutions, Rider (3) reports that such an activity is present. Certain it is that bottles of the one percent solution in constant use remain perfectly clear over prolonged periods, whereas solutions of other anesthetics tend to become cloudy after a time due to contamination. This must be due to a bacteriostatic activity of the one percent diothane solution.

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*Read before the Proctologic Society of the Graduate Hospital of the University of Pennsylvania, March 20, 1935.

Rider (3) again may be quoted on the toxicity of diothane: "A comparision of the results of that method by which diothane shows the greatest toxicity, namely, rapid intravenous injection, shows diothane to have three times the toxicity of procaine. Since diothane is more than three times as active an anesthetic as procaine one would conclude that the two anesthetics could be used with approximately the same safety . . . If toxicity comparisons are made of solutions of equal anesthetic power it is found that the procaine solution is much more toxic than an equal *volume* of diothane solution. Furthermore, the toxicity of diothane is more nearly that of procaine when it is injected into the tissues, probably due to the local retention previously discussed."

The characteristic of diothane to which reference has just been made is that it is very slowly diffusible in the tissues. Consequently, it must be placed at the area which is to be anesthetized and not in the approximate location with the expectation that it will diffuse throughout the desired site of operation. This slowness of diffusibility renders the use of adrenalin in combination with diothane unnecessary and, thus, obviates some of the danger of later hemorrhage which may occur with a combination of procaine and adrenalin. The same characteristic of diothane sometimes may be the cause of a pressure slough when too large quantities of the solution are introduced into a limited area. This sloughing is not due to the action of the drug but is due entirely to the quantity of the solution which has been used. The same sloughing might occur if the liquid which had been introduced had been distilled water.

Another characteristic of the drug is that analgesia comes on more slowly than when procaine is used. The surgeon cannot inject diothane and immediately start operation. Usually, it is necessary to wait for a period of ten to fifteen minutes after the injection, after which one may proceed with complete analgesia of the tissues to be operated upon.

This report covers the use of diothane in two groups of cases. In the one group it was used as a local anesthetic to produce analgesia mainly for operative procedures in the office. In the other group of cases, a general anesthetic was employed to perform a hemorrhoidectomy or other rectal operation and, while the patient still was under the anesthetic diothane solution was injected into the operative area to prevent later pain and discomfort. Dr. James Schofield has supplied me with a list of fourteen cases, Dr. Harry E. Bacon with a list of seventeen cases, and I present forty-two cases of my own, a total of seventy-three cases in which diothane has been used.

Dr. Schofield's Series

The series covers the period of August to December, 1934, inclusive. The patients were of both sexes and ranged in age from seventeen to seventy-two years. Thirteen of the patients were operated upon at Hahnemann Hospital and four in Dr. Schofield's office. The types of anesthesia used were as follows: caudal-sacral, eight: caudal, one; gas-oxygen, three; diothane alone, two. The diagnoses were as follows: internal hemorrhoids, five; internal hemorrhoids with anterior anal ulcer, one; anterior and posterior anal ulcer, one; posterior anal ulcer, papillitis and anal fistula, one; posterior anal ulcer, three; posterior anal ulcer with cryptitis, two; first degree rectal prolapse with posterior anal ulcer, one.

In all but three of these cases, Dr. Schofield reports prolonged anesthesia. The three cases received but one c.c. each of one percent diothane solution and are reported to have had but slight or absent anesthesia. All of the other cases received two c.c. each of the one percent diothane solution.

Dr. Bacon's Series

The series covers approximately the same period as Dr. Schofield's series. The patients were of both sexes and the age range was twenty-four to sixty years. The operations were performed at the Samaritan, St. Luke's and the Graduate Hospitals. The following anesthesias were employed: spinal, nine; gas-oxygen, two; ether, four; diothane alone, two. The diagnoses were: internal hemorrhoids, six; fistula, five; rectal stricture, two; ischiorectal abscess, one; tuberculosis of the anus, one; posterior anal ulcer, two.

Seven to ten c.c. of diothane solution were used for each of these seventeen patients. One patient with strangulated hemorrhoids had an anesthesia which lasted but one half hour. A patient with a fistula had an anesthesia which lasted eight hours. The remaining fifteen patients had anesthesia which lasted from twenty to seventy-two hours.

Author's Series

In seventeen of my series, diothane was used in conjunction with a general anesthetic or with caudal-sacral anesthesia; in the remaining twenty-five cases, diothane was used as the local anesthetic for performing the operation. The series covers the period from July, 1934 to January, 1935, inclusive. The patients were of both sexes and ranged in age from nineteen years to eighty years. All seventeen patients of the first group were operated upon in the Graduate Hospital. The anesthesias employed were as follows: ether, six; gas-oxygen, five; gas-oxygen-ether, four; sacral-caudal, two. The diagnoses were: internal hemorrhoids, nine; internal hemorrhoids with anorectal fistula, one; internal hemorrhoids with posterior anal ulcer, one; anorectal fistula with posterior anal ulcer, three; posterior anal ulcer, two; rectal prolapse with posterior anal ulcer, one.

A total of two c.c. of one percent diothane solution was injected into the operative area of the first four patients while they were still under a general anesthetic. Two of these patients reported soreness on the day of operation and had moderate pain during the first bowel movement. The two other patients required morphine hypodermically during the night following the operation. These, too, had pain during the first defecation.

On the remaining thirteen patients, the dose of diothane was increased to nine c.c. given in the same manner. One of these patients remained comfortable until his first bowel movement when he complained of moderate pain. No other patient in the series had any marked discomfort on the day of operation nor during the first bowel movement.

The twenty-five patients who received diothane as the anesthetizing agent were all operated upon in my office or the outpatient department of the Graduate Hospital for the following conditions: posterior anal ulcer, eleven; external thrombotic hemorrhoid, nine; anal cryptitis, three; anal fistulæ, two. Nineteen received the one percent diothane solution and six received the 0.5 percent isotonic solution of diothane. Both solutions apparently gave equal anesthesia. The dose employed was from five to ten c.c.

None of these patients had any marked discomfort or pain following the operation. Many of them finished their day's work after the operation had been performed.

Experience has indicated that a dose of diothane about the anorectal regions to be thoroughly effective against pain subsequent to operation must be a minimum of five c.c. of the solution. Smaller doses may induce complete analgesia of the parts but the effect often will not be prolonged enough to give the full advantages of diothane.

I feel that the drug is a distinct improvement in local anesthetics. While continued use of it may show that it has some shortcomings, so far, they have not been apparent.

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1737 Chestnut Street.

FOR THE RELIEF OF PAIN

A Preliminary Report on a New Therapy

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Neuritis, neuralgia and the various muscular pains and aches constitute a goodly portion of the average physician's practice. Whether the condition is chronic or acute, the desire for relief brings these patients to the office. In many cases the various forms of physiotherapy and internal medication constitute a slow process and all too often do not meet the patient's demand for rapid and permanent relief. In other cases the clinician approaches the patient with diagnosis uppermost in his mind and may neglect to secure adequate relief of pain while the studies are being completed. There is also the patient whose pain is intractable to any form of therapy.

Four years ago I developed a new preparation consisting of a mixture of amino compounds which has yielded excellent results in the abovementioned types of cases.

New Treatment

The treatment consists of an injection in the vicinity of the nerve supplying the painful area. The material injected is a standardized aqueous solution containing a mixture of amines derived from the carnivorous pitcher plant, Sarracenia purpurea, which infests swampy places and lives on flies, ants, mosquitos, etc., which are trapped, digested and assimilated with a subsequent conversion of protein material into amino compounds.

Comprehensive studies have shown this preparation to be nontoxic, to posses no discernible systemic action, and to have no effect whatsoever upon the cardiovascular system. Tissue sections of nerves infiltrated with this preparation show no destructive changes, in contradistincttion to alcohol and phenol derivatives commonly used. Clinically, in several thousands of injections no untoward reactions have been observed.

Experimentally, neither analgesic nor anesthetic properties can be demonstrated upon animals, nor can it be demonstrated by injecting normal patients subcutaneously and producing altered sensation of the skin. There is, as yet, no suitable explanation to account for the action of this particular mixture of amines in relieving pain. Controls with normal saline and novocaine solution leave no doubt, however, as to its marked superiority in this respect. The use of amines in other fields of medicine for the relief of pain, may, in the near future cast some light upon this problem.

The advantages to be derived from this preparation are: 1, relief of pain, often for years; 2, absence of tissue destruction; 3, no action upon motor nerves; 4, absence of reactions; 5, no contraindications to usage.

That it has some action upon the sensory nerves cannot be doubted. Following injection, the patient experiences a sensation of weight or heaviness along the course of the nerve injected which may last from one to several hours. In a smaller percentage of cases there will be a sensation of heat; in others a temporary aggravation of symptoms.

In properly selected cases, the average satisfactory response has ranged from seventy-five to eighty percent. The average number of injections was eight to ten, and optimum results were obtained by giving three injections a week.

A most important prerequisite for good results is careful diagnosis and proper selection of patients to be injected. In those patients having arthritic changes, bursitis or some organic lesion as a basis for pain, permanent or prolonged relief is scarcely to be anticipated. Removal of etiological factors, of course, should accompany treatment with this injection. A common factor often overlooked is a postural defect with resultant parietal pain. Often a slight shortening of one lower extremity will cause a pelvic tilt with a compensatory scoliosis. This should be corrected by a proper heel lift and postural exercises.

Technic

The technic for the use of this preparation is that of regional anesthesia, the details of whch may be found in the standard textbooks. Although satisfactory response has been obtained by merely injecting in the vicinity of the nerve and depending upon subsequent absorption, accuracy of technic will produce more pleasing clinical results. This is less difficult than it appears to be, for in most cases the trunk of the offending nerve can be located by its tenderness.

Case Reports

None of the cases reported in this article are mine. The reports have all been submitted by physicians interested in its clinical application.

Case I.—J. H. aged forty-two, male. Complaint, pain in neck, left shoulder, arm and forearm, duration six months. Physical examination showed skin hyperesthesia, motion limited by pain. Diagnosis, neuritis. Previous medication consisted ot salicylates and physiotherapy, with no results. There was immediate relief after the first injection of the amine preparation. A second injection was given a week later. Since then, there has been no pain and motion is normal.

Case II.—Male, aged sixty. Complaint, pain in the left shoulder, extending down to the forearm; duration, three months; diagnosis, neuritis. Previous medication with salicylates had no effect. Relief followed forty-five minutes after the first injection of the amine preparation, during which period there was a twenty minute exacerbation. There was a mild recurrence after four days, but no further injections were needed.

Case III.—Female, aged sixty-seven. Complaint, pain in the right arm and restricted motion; duration, one month. Physical examination showed marked tenderness of radial and ulnar distribution, with inability to raise the arm above shoulder level; diagnosis, neuritis, complicated by nephritis, pyelitis, and hypertension. Previous medication with theobromine. Urotropin and salicylates gave no results. Treatment with six daily injections of the amine preparation resulted in marked diminution of pain and ability to place the hand upon the head. Improvement was noted after the first injection and two months later the patient reported no recurrence.

Case IV.—Female, aged thirty-six. Complaint, pain in upper back, and inability to sleep because of marked pain; diagnosis, fibromyositis of upper back. The patient was given two injections of pitcher plant preparation at three-day intervals resulting in complete relief, with no recurrence in three weeks. Following the first injection the patient experienced burning pain for ten minutes, followed by relief.

Case V.—R. F., female, aged sixty. Complaint, pain in shoulders and arms for eight months, and inability to sleep the past three months on account of pain. Physical examination showed tenderness in the supraclavicular region and neck, greater on the right side, and limited motion of the arms, especially the right. Foci of infection were chronic tonsillitis, chronic pharyngitis, and chronic sinusitis, all of which had been treated. Previous medication consisted of salicylates, antipyrine, methyl salicylate locally, sodium bromide, elixir phenobarbital, vaccine for three months and cinchophen. The patient grew progressively worse. Twelve injections of pitcher plant preparation within a period of five weeks brought about a complete recovery. There has been no recurrence for the past three and one-half years.

Case VI.—J. E., male. Complaint, pain in the back radiating down the right leg; duration, one month. Physical examination showed sciatic scoliosis with muscular spasm, tenderness of the posterior margin of the right sacroiliac joint; diagnosis, relaxation of the right sacroiliac joint with symptomatic sciatica. The patient was given injections of the pitcher plant preparation one week apart. There was relief within five minutes after the first injection. The muscle spasm was completely gone and pain absent a week later. The second injection was given as a precautionary measure.

Case VII.—C. C., female. Complaint, pain in right groin, duration, one month. The pain was severe and interfered with sleep during this time. Examination showed area of pain in the inguinal region involving the ilioinguinal and iliohypogastric nerves; diagnosis, neuralgia. Four injections of pitcher plant preparation in the course of a week relieved the pain entirely.

Case VIII.—B. B. R., male, aged thirty-four. Complaint, pain and stiffness in the neck for the past four days. Physical examination showed that the patient was unable to move his head in any direction; chin pointed to left shoulder; diagnosis, torticollis, fibromyositis. One injection of the amine preparation into the sternomastoid muscle below the mastoid process resulted in a stinging pain for a few moments, with complete relaxation of muscle spasm and relief of pain in five minutes. There was no recurrence for over a year.

Case IX.—M. F., female, aged fifty-six. Complaint, severe pain in the region of the fifth lumbar vertebra for two years. Physical examination showed pain on pressure and on changing position; diagnosis, lumbago. Previous medication with salicylates failed to improve the condition. The patient received two injections of the pitcher plant preparation in a three-day period with complete disappearance of symptoms.

Case X.—Male, aged seventy. Complaint, pain in the leg for three months. There was tenderness on pressure over the sciatic notch and calf muscles. Distilled water administered intravenously relieved the pain but did not cure the patient. Two injections of pitcher plant preparation at two-day intervals brought complete relief with no recurrence. Relief was noticed twelve hours after the first injection.

During the past four years this preparation has been used successfully in the following conditions: Intercostal neuralgia, scalp neuralgia, sciatica, lumbago, myositis, herpes zoster (pain), neuritis (toxic, infectious, metabolic, chemical, traumatic, exposure). Uniformly good results have been obtained in relieving the pain of alcoholic neuritis. In other words, it is applicable to the many types of pain affecting the covering of the body, in contradistinction to visceral pain.

In a small experimental series of malignancies (eighteen cases), with pain due to the involvement of the peripheral nerves, more than half the patients were relieved for two to twelve days without the use of opiates. In cases involving the bladder, rectum, prostate, vulva, etc., the injections were given in the sacral canal with symptomatic relief.

I wish to express my appreciation to Dr. William Bates for his valuable suggestions and for the opportunity of studying many interesting clinical cases.

3300 Baring Street.

Heart Disease and Tuberculosis

(*Concluded from page* 564)

ation. It runs the gamut from an out and out anxiety neurosis to a severe thrombotic occlusion of a coronary vessel. The thyroid in the first place is not dissociated by any operation thus far planned, only a part of the neural network is cut. My own feelings about many of the post Lerichean activities is that they cover up things."

Dr. Howard Lilienthal expressed himself as follows: "Edmund Horgan and James Alexander Lyon have made a contribution to the surgical treatment of angina pectoris and, whether or not we agree with the theory of their conclusions, they have begun something which will be the basis for further inquiry."

Dr. Franz Torek answered my question as follows: "It appears from the three cases cited in their reprints that hyperthyroidism does not play an important rôle in the good results of the operation in angina pectoris. It was not an important element in Lyon's and Horgan's cases and we would be justified, therefore, to take their observations as being correct."

Dr. Walter L. Bierring, expressed himself thus: "Lyon and Horgan's operation has, to my knowledge, not as yet been performed in this section. It would seem to have a place in selected cases when total thyroidectomy is not practicable or inadvisable."

From Dr. Elliott C. Cutler's "Surgery in the Management of Heart Disease," which appeared in the *Journal of the Michigan State Medical Society* (December, 1934), I quote the following: "Not long ago division of the sympathetic nervous supply to the heart was proposed as a method of treating angina pectoris. . . . No matter how complete the procedure, or whether the interruption of the nervous pathways be accomplished by surgery or by alcohol, injection of the nerves, the relief of pain is variable and not complete."

The aftercare and endeavor to rehabilitate the cardiac patient cannot be the same for manual laborers, office workers or professionals. All chronic types of cardiac sufferers must be instructed by their physician as to what they can or cannot do. Even the angina pectoris patient can maintain a hopeful outlook in regard to a long life, if he bear in mind his physical handicaps.

A cardiac sufferer must learn to live with the heart he has. In the first portion of this article (1) is described the method of lessening the development of heart disease due to the narrowing of the lumen of the coronary arteries. Controlled diaphragmatic respiration adds to the oxygen supply and brings about a massage of heart and coronary arteries which prevents the thickening of the intima of the vessels supplying the heart. This method of breathing will give additional comfort and tend to prevent further complications.

In regard to the modus operandi of controlled diaphragmatic respiration, I must again refer the reader to a very complete description given in the first portion of this article which appeared in the MEDICAL RECORD, January 2, 1935.

There is not a tuberculosis worker in this country who will not admit the frequency of relapses of cases which have been discharged from institutions as arrested or economically cured. Patients in greatest need of aftercare are those who are discharged from sanatoria or hospitals in which they can be kept for a limited time only and those who leave private sanatoria for financial reasons.

Such causes for virtually forcing a tuberculous patient, often still a bacillus carrier, back to his family or allowing him to seek and find employment by hiding his infirmity, must not exist. More municipal or state sanatoria for the still infectious cases and institutions for rehabilitating erstwhile tuberculous invalids must be created.

On account of financial reasons, the physical means for guarding against a tuberculous relapse such as aerotherapy, respiratory exercises, massage and hydrotherapy, under medical guidance, are not obtainable by the majority. Realizing this, the National Tuberculosis Association, appointed a special Rehabilitation Secretary, Mrs. Beulah Weldon Burhoe, who, in her "Social Adjustment of the Tuberculous" makes a very thorough survey of the economic situation of the tuberculous invalid. In this survey, are discussed the existing extra-sanatorium facilities and their adequacy, such as the Altro Work Shop, the Tomahawk Lake State Camp, Olive View Convalescent Camps, Potts Memorial Hospital, Half Way House, the Boston Workshop, Bellevue Settlement and other aspects of extra-sanatorium facilities. Mrs. Burhoe also discusses employment in sanatoria, occupational therapy, adult education in sanatoria and educational and vocational status of sanatorium patients.

The psychological benefit derived from the proper social adjustment of the former tuberculous invalid is, of course, most evident, particularly when he feels that he is no longer a burden to his family, relatives or community and that he has, in a measure, again become self-supporting. Let us not forget, however, that this goal cannot be achieved by all. A relatively large number will still have to be maintained in postsanatorium institutions, because they cannot, for physical reasons, compete with the healthy individual so many of whom are now without employment.

Yet I maintain that whatever work can be done in taking care of these semi-invalids will be a financial gain to the community and will certainly lessen the prevalence of tuberculosis.

Adequate medical care for the nation at large has been the subject most widely discussed in recent years. The reason for this has not only been the realization of inadequate medical and surgical care of many, but also the deplorable economic status of the average physician. Health insurance of various types, group practice and accident and sickness insurance and many other schemes have been proposed. Dr. Livingston Farrand, now president of Cornell University, and a lifelong student of the tuberculosis problem, maintains that because the masses of the American people are receiving inadequate medical care, a system of insurance should be devised that would work to the good of both physician and patient.

Health insurance, however, seems to have been a failure in most European countries and the American medical profession at large is opposed to it.

An arrangement whereby adequate hospital care of the masses can be assured is offered in the newly devised group hospitalization, planned by the Associated Hospital Service of New York, a non-profit corporation, and sponsored by the United Hospital

Fund. Hospital care of the poor and those of moderate means is often a burden demanding financial sacrifice. This group hospitalization, for three cents a day, insures hospital care for twenty-one days out of the year, including nursing, laboratory and x ray tests, etc. The cost of medical and surgical care is settled between the patient and the doctor or surgeon. Further details concerning this very beneficial scheme, can be obtained by applying to the Associated Hospital Service of New York, 370 Lexington Avenue, New York City.

For obvious reasons, the tuberculous patient cannot be included in this provision, but heart cases, of course, do and should receive the benefits of group hospitalization. I feel that this enterprise will not only lessen the prevalence of heart disease, but indirectly also that of tuberculosis. For those entering for other diseases, will, of course, be carefully examined and I venture to say that not a few cases of incipient tuberculosis will be found which have not heretofore been diagnosed and for whom proper hospitalization will be made. Equally important will be the guidance in prophylaxis of those who may be strongly predisposed to tuberculosis.

President Roosevelt's message to Congress on January 17, 1935, can well serve as an inspiration for the concluding paragraphs describing the efforts which are and should be made to lessen the prevalence of cardiac and tuberculous diseases.

The program, as outlined in that message, provides first for unemployment compensation. This means a removal of the causes of undernourishment in families where the breadwinner is unemployed. As stated before, undernourishment, overcrowding and unsanitary housing conditions are predisposing to both diseases.

The housing problem is occupying at this time the attention of almost every city government in the Union and is warmly sponsored by our President. Mayor LaGuardia of New York City expects to get about one hundred million dollars from the federal government for new model housing construction, starting with a tract already assembled in the Williamsburgh section of Brooklyn.

Instead of what was known as "lung blocks" thirty years ago, model tenement houses are already in existence or in course of construction. For healthful, practical and aesthetic reasons, none should be built without a flat roof which could be made into a roof garden and all should be fireproof. Whenever possible, houses for not more than three or four families should be erected in preference to the many-storied typical apartment house. The latter often deprive opposite buildings of sunlight. All modern conveniences, hot and cold water, sanitary plumbing, etc., should be a matter of course.

The second item in the President's program is old age pensions including compulsory and voluntary annuities. The anxiety neurosis causing heart disease of the aged when no longer able to earn their living will be removed.

The third recommendation is a federal agency for dependent children through support of existing mothers pension systems. Not only would undernourishment and lack of care for the growing child be eliminated, but widows would thus not be compelled to submit their children to institutional life at a time when the child needs motherly care and supervision.

The fourth item in the President's program calls for cooperation with state and local agencies for extending maternal and child health services and for the care of crippled children. By such cooperation between state and local agencies for prenatal and postnatal care, the welfare of the child-bearing mother would thus be assured. She would be instructed in all that is necessary for the proper rearing of her child and should certainly be advised as to how to guard against another pregnancy too shortly following the preceding one, so that at least two years will be allowed for her generative organs to recuperate.

The President further recommends additional federal aid to state and local public health agencies and the strengthening of the federal public health service. This would mean the prevention of all communicable and infectious diseases through medical and sanitary measures, and the best and most skillful care of the physically and mentally diseased.

The addition, to this vast and far-reaching program of President Roosevelt, of the ratification of the Child Labor Amendment, which would prevent the stunting of the physical, mental and moral growth of future generations, would mean, if supported by Congress, a healthier and happier nation and life more abundant for all.

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Current Recordings

Influenza Virus Identified

Through observation on its effects on eight generations of ferrets, the influenza virus was identified in a series of experiments, described by Dr. I. J. Brightman of Yale University, at a meeting of the Society for Pediatric Research held in Atlantic City. Dr. Brightman said his experiments proved the general belief that the influenza virus was capable of passing through a filter, and was too fine to be distinguished under a microscope. The doctor told of infecting one ferret with influenza virus recovered from children suffering from the disease, and then taking the germ from the infected ferret and infecting one after another of the animals through eight generations.

New Vaccine Checks Ringworm

From the athlete's foot fungus, Trichophyton, Dr. Herbert Thomas Kelly, of the University of Pennsylvania Graduate School of Medicine, has prepared a vaccine which, he reported, will immunize diabetics against four different species of ringworm fungi. From the fungus monilia he made an antigen called oidiomycin, which immunizes diabetics against the ringworm of that fungus. Gangrene, Dr. Kelly explained before the American College of Physicians, is one of the major causes of death among diabetics, and this gangrene often develops from ringworm of the toe. Of 346 diabetic deaths studied by him, ninety-two, or 26.6 percent, died from gangrene. It is hoped, therefore, that the development of the vaccines will save many lives every year.

Living Bones Are Plastic

Dry bones seem to be hard, brittle, rigid and unchangeable, but in the living organism it is highly plastic, Dr. Charles B. Davenport, of the Carnegie Institute, Department of Genetics, Cold Spring Harbor, L. I., reported to the American Association of Physical Anthropologists at Philadelphia. He has made measurements of x ray pictures of the skull taken at one-year intervals and has found progressive changes taking place. Changes take place not only in the outer shell of the skull, but also in the bony compartment called the sella turcica, in which the pituitary gland is located at the base of the brain, he found. The living bone, he said, adjusts itself to the pressure of enlarging soft parts.

Metabolism of Old People Constant

After measuring the metabolism of thirty-six elderly women, ranging in age from sixty-six to eighty-eight, Dr. F. G. Benedict, of the Nutrition Laboratory of the Carnegie Institute of Washington, reported the metabolism approximately constant. While this is almost the natural expectation in old people, it is interesting to learn that bulk has little effect on the 1,030 calories consumed by each of these old people on the average. The average weight of the group was fifty kilograms, but the 1,030 calories increased only eight for each kilogram in excess of fifty up to seventy and decreased only eight for each kilogram below fifty. Heavier women did show an increase of 12.5 calories for each kilogram of excess weight, which Dr. Benedict ascribed to the actual physical labor involved in carrying the extra weight around.

Malaria Remedy Found

New hope of an effective remedy for malaria was raised by a French savant, Emile Brumpt, from the discovery he made of a hitherto unknown parasite in the blood of chickens. The parasite causes malaria. Describing the tiny new parasite, which belongs to the family of harmatozoa, in a paper read at a meeting of the French Academy of Sciences, Brumpt claimed that it would be of great value in the study of the recently discovered synthetic drug which could be used against malaria in human beings.

Rich Meat Diet Relieves Headache

Incidental to the development of a treatment for epilepsy, Dr. Eugene Foldes, of New York City, found that a diet rich in meat relieves headache. Dr. Foldes told the American Psychiatric Association that the rich meat diet helps to control the water formation which brings about the "wet brain" condition present in migraine and epilepsy both. With the use of this diet, Dr. Foldes declared that migraine had disappeared altogether in a number of cases. In others, the severity of headaches had decreased or had not occurred often. Along with the added meat, the carbohydrate or sugar foods must be cut down, and fats carefully rationed, or else, Dr. Foldes said, the extra meat can do much harm.

Insulin Substitute Discovered

An extract, derived from the duodenum, seems to have the property of not only checking diabetes, but also of checking the presence of too much insulin in the body. A report to this effect was presented at the meeting of the American College of Physicians by Dr. Garfield G. Duncan of the Pennsylvania Hospital. Dr. Duncan stated that very small doses, one-quarter of a dram, administered by mouth, have been found sufficient to relieve diabetes in sixty-six percent of cases. The effect of the extract was found to be carried over in some instances for days, weeks and months, and in one instance for a year. After it has reached the stage when it can be given for general use, the duodenum extract will not only be found much simpler then insulin to administer, but less costly. "Patients needing large amounts of insulin in three or four doses, daily," Dr. Duncan stated, "were able to give it up while taking an active preparation of the duodenal extract, and could get along without insulin for a period of three to eight weeks after the discontinuance of the extract." The extract used by Dr. Duncan was originally prepared in 1932 by Drs. N. B. Laughton and A. B. Macallum of the Physiology and Chemistry Departments of the University of Western Ontario at London. Dr. Duncan added: "Many difficulties must yet be overcome before the extract can be given to the medical profession with the promise of uniform activity. Nevertheless, we believe that the Macallum-Laughton extract is an active agent, and is of value in maintaining control of the hyperglycemia and glcosuria in some cases of diabetes."

Life Restored to Frozen Bodies

Dr. Ralph Willard, a research chemist of the Willard Laboratories in Los Angeles, has been working for years to prove that life can be restored to bodies stilled by freezing. He announced that life had been restored successfully to a guineapig frozen to death four days previously. "I discovered that by injecting sodium citrate into the system," explained Dr. Willard, "I was able to destroy a certain chemical in the blood — fibrogen, which causes coagulation after death. That was the big problem. The rest was not so difficult. After injecting the sodium citrate, I froze the animal in a sealed gas chamber into which oxygen and ether were pumped. When the animal was under the anesthetic, carbon dioxide was pumped into the chamber." When taken from the refrigerator in which the animal was allowed to "keep," it was found that his body was frozen solid, and that no heartbeat could be heard. However, after the administration of heat, and adrenalin and ephedrin into the heart, the animal opened its eyes, and in a few days seemed to show no bad results from his recent "death." The experiment depends on properly "dehydrating" the body during freezing. "The ultimate purpose," Dr. Willard explained, "is to use freezing to kill certain bacteria, while retaining suspended life in the tissues. If it proves entirely safe, it may be possible to perform the process with human beings."

Curative Mud Found in Atlantic City

Lying four to one hundred and fifty feet beneath the surface of the land and ranging from twenty to one hundred feet, a stratum of mud which is believed to possess highly curative powers, was discovered by a construction engineer, while making foundation borings. Noting the peculiar odor of the mud and that metals turned black in it, the engineer had a chemical analysis made. The analysis showed that the mud contains 4.71 percent iron oxide, 8.38 percent alumina, .09 percent phosphorus, 1.34 percent lime, .95 percent magnesia, 1.90 percent magnesium chloride, .84 percent magnesium sulphate, 11.61 percent sodium chloride, 1.72 percent potassium chloride and traces of bromides and iodides. Experts say this chemical content compares favorably with other famous medicinal spring waters. With foreign muds bringing as much as $2,500 a ton from sanatoriums in this country, Mr. Anthony P. Miller, the engineer who found the mud, is keeping the exact location of the deposit a secret for the time being. Mayor Bachrach of Atlantic City, hailing the "discovery, said: "Atlantic City will certainly take steps to publicize and develop this new feature."

Group Hospital Plan Started

The new three cents a day hospital plan went into operation recently with an enrollment of 640 members and a large number of applications awaiting for acceptance. Any member of the group is entitled to free hospital care for twenty-one days in a semiprivate room during the ensuing twelve-month period. The average hospital bill for a ten-day stay in a semiprivate room is estimated to be $97.50. The hospitalization service offers this health insurance for a fee of ninety cents a month. The hospitalization includes use of the operating room, anesthetics and all hospital service, except private nursing. The physician is chosen by the patient and his fee is paid by the patient in the usual manner. Hospital care will be given to any paid-up group member on the recommendation of a reputable physician for everything except contagious diseases and tuberculosis. The service even includes maternity confinement if that occurs ten months after the membership is taken out. The service will be open to members ten days after the first dues are paid, except in emergency cases such as appendicitis or accidents, when it will be available immediately. The service will not be given in workmen's compensation cases, however. All members must be under sixty-six years of age. Groups of ten or more may appoint a treasurer, or they may have their employers collect the dues from the payroll. An employed member may take out membership for any member of his family.

Personality Changed by Brain Operation

A woman whose mind was improved by an operation that removed nearly the entire "thinking" portion of her brain was described before the American Psychiatric Association recently. The operation removed the entire right prefrontal lobe and most of the left lobe. It was never before believed that these lobes so distinctly affected the personality. The report was made by Dr. Spafford Ackerly, associate professor of psychiatry at the University of Louisville School of Medicine. The operation was performed two years ago, he said, by Glen Spurling, professor of neurosurgery at the same school. From a childlike, irresponsible, gay woman, the patient has developed into a decisive person of better concentration powers, better memory, and more even disposition. Her husband even remarks upon her feeling of superiority. One of the explanations for this change is that the very small portion of prefrontal lobe left may be functioning better than did the whole thinking mechanism when intact.

Doctors List Drinking Causes

Physicians who studied twenty alcoholic cases presented their findings to the convention of the Medical Society of the State of New York. "People rarely drink because they like the taste of liquor," the report said, but because of loneliness, distress over too great sensitivity, worry and unemployment, and to aid sociability.

News Items

American Public Health Association. — The sixty-fourth annual meeting of the American Public Health Association and meetings of related organizations will be held in Milwaukee, Wisconsin, October 7th to 12th. It is expected that more than two thousand professional public health workers from every state in the Union, and from Canada and Mexico, will be present.

American Gastroenterological Association. — Dr. Howard F. Shattuck of New York was elected president of the American Gastroenterological Association at the annual meeting held in Atlantic City on June 11th, succeeding Dr. B. B. Vincent Lyons of Philadelphia. Other officers elected were: first vice-president, Dr. Chester M. Jones, Boston; second vice-president, Dr. Gordon Heyd, New York; secretary, Dr. Russell S. Boles, Philadelphia; treasurer, Dr. A. H. Aaron, Buffalo, and recorder, Dr. Sara M. Jordan, Boston.

American Association of Milk Commissions.— At the annual meeting held in Atlantic City June 10th and 11th, the following officers were elected: Dr. Milton J. Rosenau, professor of preventive medicine and hygiene at Harvard University, president; Dr. Paul B. Cassidy of Philadelphia, acting secretary and treasurer; Mr. Seth W. Shoemaker of Scranton, Pa., assistant secretary. Dr. Hugh L. Dwyer of Kansas City, retiring president and an associate professor of pediatrics at the University of Kansas, was elected to the council.

American Congress of Physical Therapy.—The fourteenth annual meeting of this society will be held in Kansas City, Missouri, September 9th to 12th, with headquarters at the Hotel Kansas Citian. In connection with this meeting an instruction class covering the field of physical therapy will be held on September 5th, 6th and 7th. The program will include symposia on many subjects, including arthritis, fever therapy, and short wave therapy. Also, clinical group conferences will be held in the various specialties. Preliminary programs and further information regarding this meeting may be secured by addressing the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

Public Health Conference.—The Annual Conference of the Health Officers and Public Health Nurses of New York State will be held at Saratoga Springs, June 26th to 28th, with headquarters at the Grand Union Hotel. The program will consist of joint conferences of health officers and public health nurses. Among the subjects to be discussed are Immunity in the Virus Diseases, Epidemiology of Tuberculosis, Maternal Mortality, the Prevention of Neonatal Deaths, and other important topics in public health work. Among those who will preside at the various sessions are Dr. Thomas Parran, Jr., State Commissioner of Health; Dr. John L. Rice, Commissioner of Health, New York City; Dr. Thomas P. Farmer, Dr. Walter A. Leonard, Marion W. Sheahan, R.N.; Dr. Paul B. Brooks, Caryl Ketchum, R.N.

Annual Meeting of School Physicians. — On Wednesday, June 26th, the Annual Meeting of the New York State Association of School Physicians will be held in Saratoga Springs under the presidency of Dr. Dean Franklin Smiley, director of the Division of Health and Physical Education, State Education Department.

Academy of Physical Medicine.—The thirteenth annual meeting of the Academy of Physical Medicine was held in Atlantic City, New Jersey, June 12th and 13th, under the presidency of Dr. William L. Clark of Philadelphia.

Buffalo Academy Elects Officers.—At the annual meeting of the Buffalo Academy of Medicine held on Wednesday, June 5th, the following officers were elected: Dr. J. Herbert Donnelly, president; Dr. Francis D. Leopold, secretary; Dr. Otto S. McKee, treasurer.

Examination for Medical Technicians. — The United States Civil Service Commission announces an examination to fill the positions of senior medical technician and medical technician. Applications must be on file with the Commission in Washington, D. C., not later than June 24th.

Personal. — Dr. William Seaman Bainbridge has been appointed by President Roosevelt to represent the United States at the Eighth International Congress of Military Medicine, Surgery and Pharmacy, to be held in Brussels, June 27th to July 3rd.

Dr. W. B. Talbot, assistant director of Grasslands Hospital in Valhalla, New York, has been appointed superintendent of the New York Post-Graduate Hospital, succeeding Dr. T. Dwight Sloan who has resigned.

Dr. Howard T. Karsner, professor of pathology of Western Reserve University, has been elected to membership in the Association Française pour l'Étude du Cancer.

Dr. Lars F. Gulbrandsen, instructor in bacteriology and public health at the University of Illinois College of Medicine, Chicago, has been awarded the Joseph A. Capps Prize for 1934 at the Institute of Medicine of Chicago.

Dr. Milton J. Rosenau, Charles Wilder professor of preventive medicine and hygiene at Harvard University since 1909, has retired.

Dr. John Lovett Morse, professor emeritus of pediatrics, Harvard Medical School, Boston, celebrated his seventieth birthday on April 22nd. A dinner was given in his honor by former house officers and his pupils, at which Dr. Richard M. Smith was toastmaster.

Dr. Roy R. Grinker, associate professor of neurology, Graduate School of Medicine, Division of Biological Sciences, University of Chicago, will be in charge of the new department of psychiatry which will be opened at the University on July 1st.

Dr. Kurt Goldstein, formerly professor of neurology and psychiatry at the University of Frankfurt-am-Main, and honorary professor in the department of Neurology and psychiatry at the University of Berlin, has been appointed research assistant in the department of psychiatry at the College of Physicians and Surgeons, Columbia University.

GERMANY

Dr. Kolle Dies.—On May 11th, Dr. Wilhelm Kolle, privy councillor and director of the State Institute for Experimental Therapy and of the Chemicotherapy Research Institute, George Speyer Haus, at Frankfort-am-Main, died in Weisbaden after a long illness. He was sixty-eight years of age. Among prominent institutions with which Dr. Kolle was connected during his lifetime were the Robert Koch Institute for Infectious Diseases at Berlin, and Bern University where he was professor of bacteriology. He directed state scientific expeditions into South Africa and also into the Sudan for the study of leprosy and rinderpest. For many years he was a member of the permanent standardization commission for therapeutical and bacteriological medicine of the League of Nations Hygiene Committee.

Judge Payne Awarded Medal of German Red Cross.—Not long before his death, Judge John Barton Payne, Chairman of the American Red Cross, received from the President of the German Red Cross, H.R.H. the Duke of Saxe-Coburg and Gotha, the medal which is the highest distinction of the German Red Cross Society. The Duke was on his way across America to attend the Fifteenth Annual Red Cross Conference at Tokyo, but he broke his journey to go to Washington to visit the national headquarters of the American Red Cross and to present the medal to Judge Payne in his dual capacity as chairman of the American Red Cross and of the Board of Governors of the League of Red Cross Societies.

RUSSIA

First Aid Institute for Tachkent.—Through the efforts of Dr. Kozyreff the city of Tachkent has established a first aid institute, with a building specially constructed for the purpose. It will contain 450 beds, and supply surgical, therapeutical, gynecological, obstetrical, ophthalmological and otorhinolaryngological services. One of the features of the institute is the possession of two sanitary aviation units for transporting the acutely ill from localities which are remote or difficult of access.

Changes in Medical Education.—According to a recently published survey, the number of medical students in Russia has increased from 26,100 in 1928 to 48,000 in 1934 in the forty-nine medical schools in the country. In spite of this great increase, the number of physicians is far from sufficient to minister to the vast republic. In order to remedy this defect the Soviet Government has decreed matriculation from 1924 to 1937 of 103,610 medical students throughout the republic. Of these students, seventy-five percent must specialize in internal medicine, surgery and gynecology and obstetrics; fifteen percent in pediatrics, and ten percent in hygiene. The narrower specialties, such as otorhinolaryngology, ophthalmology, and dermatovenerology, must originate from clinics and special courses in the medical schools.

BELGIUM

Aviation Congress at Brussels.—The third International Congress on Sanitary Aviation is being held in Brussels, June 11th to 17th, under the patronage of the Dowager Queen of the Belgians, Elisabeth, the young King and Queen of Belgium, and His Excellency, the President of the French Republic. The plans for the meeting are being managed by the officials of the Royal Aero Club of Belgium, the International Aeronautic Federation, and the Belgian Red Cross. Four main questions will be discussed: 1, Use of aviation, private or commercial, for health purposes in cities and colonies; 2, Collaboration of public services and private organizations for perfecting sanitary aviation in times of peace; 3, Organization and functions of first aid in public aerial transportation; 4, Mobilization of aviation facilities in times of calamity.

Universal Exhibition Being Held.—The above international congress is one of the features of Belgium's Universal Exhibition, being held in Brussels from May to October. This exhibition has one whole section devoted entirely to health and welfare projects which is in charge of the director-general of the Belgian Red Cross. The Brussels Health Service in cooperation with the Red Cross are in charge of all first aid and sanitary activities during the several months of the exhibition.

Congress of Midwives.—Another feature of the exhibition will be the second International Congress of Catholic Midwives, to be held in Brussels, July 13th to 15th. The program of this conference will be announced in the near future.

ITALY

International Radiological Center at Venice.—As an outgrowth of resolutions adopted last September at the International Congress held at Venice under the presidency of Marquis Marconi and Count Volpi, plans have been completed for the establishment at Venice of a radiological center where chemical, biological and other aspects of the science may be fittingly coordinated. Here the International Society for Radiobiology will establish its headquarters, and an international committee composed of representatives from neighboring nations has been appointed: The center will be divided into sections devoted to radiobiology, electrobiology, photobiology, study of the cosmic rays, ultra-sound, etc. The name of the center will be *Centra Luigi Galvani*. Among physicians and other scientists actively interested in the new center are Broglie and Vlès of France: Behnker, Anderhalden, Scholz, and Gegener of Germany; Ornstein and Bijtel of Holland; Gurwitsch, Lutoff and Baron of Russia; Marinesco and Brateanu of Roumania; Liebesny and Oppenheim of Austria; Körösy of Hungary; Santa Rini of Greece; Compton, Nobel prize winner, Wood and Zworikin of the United States; Adrian, Nobel prize winner, and Blackett of Great Britain.

LATIN AMERICA

Buenos Aires Honors Tornú.—A bust of Dr. Enrique Tornú, founder of a progressive curriculum at the tuberculosis institution which bears his name and active worker in the campaign against the white plague, was recently unveiled in the beautiful gardens of the above hospital. Besides his work in the field of his specialty, Dr. Tornú was the author of many books, monographs and articles on tuberculosis.

Dominican Red Cross Medal.—In order to encourage and honor works and deeds of self-abnegation, courage and mercy, the Dominican Republic has granted to the Red Cross the privilege of instituting a special "medal of merit" to be awarded to doctors, nurses, auxiliaries and others who qualify in the abovementioned lines of work or perform notable acts in times of emergency, danger and calamity.

Letter from Paris

(*From our own correspondent*)

Legal Actions between Doctors and Patients

It is becoming more and more fashionable in France for therapeutic mishaps to be made the pretext for legal actions. The gladiatorial instinct and the often more than sporting chance of substantial damages are two of the greatest incentives to this game of doctor-baiting. But sometimes it is a costly game for the patient, witness the following case which has recently been dealt with in the *Première Chambre du Tribunal Civil de la Seine.* A certain engineer underwent an operation on the septum of his nose. Three days later he was given an injection of oil of camphor in the right thigh by a nurse acting under the orders of his surgeon. Nine days after the operation on the nose he had again to be operated on, this time for an extensive subaponeurotic phlegmon which had developed at the site of the injection. The patient valued this phlegmon at 100,000 francs. The surgeon refused to pay. The first medical expert called on for an opinion gave it in favor of the claimant. This expert had, however, to admit that he had arrived at his opinion largely by a process of exclusion. He pointed out that as the phlegmon developed at the site of the injection, as the solution injected was supposed to be sterile, as there was no general or local malady which could account for the accident, and as the operation on the nose could not be considered as a possible cause of the phlegmon, there was nothing for it but to assume that culpable negligence on the part of the nurse was at the root of the trouble. Three other experts gave, however, a unanimous opinion in favor of the defendant. They insisted that occasionally the injection of oil of camphor may provoke an abscess however strictly the rules of asepsis and antisepsis have been observed. Such an abscess may be sterile or a fixation abscess which has attracted germs already circulating in the body. In the light of these arguments and for want of direct evidence shown that due cleanliness had not been observed, the court gave judgment in favor of the defendant, and the claimant had not only to dispense with the 100,000 francs, but had also to pay the costs of the action.

Dentists Hold Annual Congress in Paris

On March 31st, the forty-ninth annual dental congress was opened in the Grand Palais, lasting till April 7th. Its organizer, Monsieur Roger Renault, had a stupendous task. For numerous associations in the dental world wished to participate in this congress, which was international insofar as Belgian and Swiss dental associations were concerned. American, Austrian, Italian and Spanish dentists were also present. Any layman who might have strayed by mistake into the Grand Palais during this week must have escaped dazed and amazed by all he saw. The world of dentistry has, indeed, become impressively varied and complicated. Here it would be impossible to give even the headings of the papers read, but it may be noted in passing that the modern dentist no longer thinks in terms of teeth only, witness the discussion at this congress of such subjects as tuberculous glands of the neck, cancer of the tonsils, etc. Pyorrhea alveolaris was discussed in connection with a book on this subject recently published by Professor Roy of the *École Dentaire de Paris.* He played a leading part in this congress and took the chair at the meeting held on April 1st. Dancing figured officially on the program on two nights, and unofficially on an unknown number of nights. Luncheons and dinners, as well as excursions to hospitals and other centres of interest contributed not a little to the oiling of the wheels of this congress. The American Hospital in Neuilly was one of the institutions to which the delegates to the congress were cordially invited; and the cooperation of the American Dental Club of Paris contributed not a little to its signal success.

Campaign Against Undulant Fever in France

In June of this year a congress, devoted exclusively to the problems of undulant fever, will be held in Avignon, at one time the home of the Popes, in the south of France. This will by no means be the first time that this subject has been discussed at French medical congresses, and it may be noted that as recently as last October, special attention was paid it at the *Congrés d'Hygiène* held at the Pasteur Institute in Paris. In the autumn of 1932, it was calculated that some three thousand new human cases occur annually in France, where the geographical distribution of this disease shows a rapid progress up the Rhone and to the Alps. While goats and sheep were once the chief offenders, cattle are now, apparently, a growing source of the infection.

One of the few encouraging circumstances connected with this disease (which Professor Nicolle, in a prophetic spirit, described many years ago as a disease with a future) is the creation of a research center in 1930 in the University town of Montpellier in the south of France. This center, devoted exclusively to the study of undulant fever, owes its being to the combined initiative of the hygiene section of the Rockefeller Foundation and the Bouisson-Bertrand Institute. An account of the first four years' work of this center has recently been given by Dr. R. M. Taylor, Dr. M. Lisbonne and Dr. L. F. Vidal, who point out that its objective has from the start been the epidemiological study of this disease with a view to its prevention. To this end they have sought the causes of the extension of the disease in France, the animal sources of infection, the different varieties of the germs concerned, and the manner in which the disease is most frequently transmitted.

Already, certain conclusions can be drawn from the investigations of the Montpellier center. It is now fairly certain that the milk-borne disease of urban communities can be much reduced by the boiling or pasteurization of all milk supplies. Far more difficult is the prevention of the disease among those whose work entails frequent and intimate contact with infected animals. It is probable that the injunction to wash the hands carefully and to disinfect them after every dangerous contact will continue to be a dead letter, considering the conditions now existing in the south of France. Here the indiscriminate intimacy in which human beings and animals live together affords little hope of greater cleanliness, and though some progress has been made in popular health education in this quarter, most of this work has still to be done.

Although the experiments of the Montpellier center on animals, and its experience with the staff of its laboratory have shown how inadequate is the immunity conferred by the vaccines at present available, it is considered advisable to advocate the vaccination of human beings in rural communities whose exposure to massive infection is probably less than that to which the staff of the laboratory is exposed. As far as the disease in animals is concerned, the ideal vaccine does not exist at present, and the principles underlying its preparation have yet to be discovered. A living vaccine is apt to be a two-edged sword; and in the experience of the Montpellier center, two cases of undulant fever caused by Brucella abortus have almost certainly resulted from the manipulation of a vaccine intended for cattle. Even if strains, nonvirulent to man for the time being, could be found, one would have to be sure before making extensive use of a vaccine derived from them that their nonpathogenic characters are fixed, not liable to dissociation in the wrong direction.

Legalization of Prostitution

While many European countries have officially abolished the brothel and its many variations and synonyms, France continues to believe in the value of the registration and periodical medical inspection of prostitutes. Local option, at the discretion of municipal authorities is, however, capable of giving practical expression to local movements. Paris, for example, is still a supporter of the regulation of prostitution, but the old university town of Grenoble has declared itself in favor of the abolition of even the flimsiest official sanction of prostitution in any form. Other communities are beginning to follow the example of Grenoble. As from January 1, 1935, Fontainebleau, under its capable and enterprising Mayor, Dr. Marty, has undertaken to suppress all *maisons de debauche* and the like. Cabarets and all other concerns open to the public may not employ women and girls unless they are over the age of eighteen and hold a certificate, not more than three months old, of good conduct. In another town, Saint-Brieuc, the mayor has notified the proprietors of brothels that unless they are closed, prosecutions will follow. Dr. Siredey, president of the French Academy of Medicine and an experienced gynecologist, is also on the side of the abolitionists, and he has recently declared that, in his opinion, the immediate suppression of brothels would "constitute a great moral and social progress". He considers as illusory and misleading the measures supposed to to be taken in the officially controlled brothels against the spread of disease, and he regards them as an invitation to debauchery and a support of the white slave traffic, "a relic of a frightful slavery". When and if women are given the parliamentary vote, the abolitionists may find their prospects considerably brighter than they are at present; and the sporadic revolutions against regulation already referred to are straws showing in which way the wind is blowing. There is, however, the army! In a recent lecture, Professor L. Ferrabouc, of the military hospital Val-de-Grâce, has declared himself a frank and unrepentant regulationist. Army medical authorities are apt to think in terms of combatants rather than with a benevolent eye to the other sex!

CLAUDE TYSSE.

Letter from England

(*From our own correspondent*)

Osteopathy

The Bill introduced into the British Legislature for the purpose of obtaining State recognition for osteopathy came to a sudden ending, or rather a consideration of the matter before the Select Committee of the House of Lords concluded abruptly on April 12th. The promoters of the Bill through their leading counsel decided to carry the proceedings no further. Twelve days had been expended in examining witnesses for and against, and specialists in pathology, physiology, anatomy, and so on, to give their views on osteopathic writings, would have followed had the examination continued. Thus far the attempt of the osteopaths and their supporters to gain a legal status for their cult in Britain has met with no success and it remains to be seen whether more efforts in a perhaps somewhat different direction will be made to accomplish their object.

Cancer Research

It is announced that the New Zealand Jubilee gift to the King, at his majesty's wish, will be a fund for cancer research in the Dominion. Towards this fund the New Zealand Government will contribute five thousand pounds. The fund will be administered by the New Zealand branch of the British Empire Cancer Campaign Society, four divisions of which are in New Zealand.

The Jubilee gift of Canada is also employed in a Dominion wide campaign against cancer and this decision is by the wish of the King.

Middle Class Clinics for Rheumatic Diseases

The public conscience appears to have been aroused as to the meagre facilities for diagnosis and treatment of a large section of the middle class handicapped by comparative poverty. Efforts are being made in many directions to remedy this state of affairs. Rheumatism in its chronic forms is extremely prevalent and is the most prolific cause of crippling, disability and invalidism in Britain. The middle class with little money often live under conditions calculated to bring into activity seeds of the disease which may be latent, and are unable to obtain correct diagnosis or to make use of preventive or remedial measures which are open to those with money.

There are now clinics in some parts of the country at which diagnosis and treatment at very small cost may be procured. Lord Horder recently opened at Buxton, a clinic for middle class patients of limited means. Spa treatment in rheumatism and gout is frequently highly efficacious and it is a wise move to enable those whose finances are low to avail themselves of the treatment under skilled medical supervision obtainable at a high class spa.

Birth Rates Falling in England and Wales

The Registrar General for England and Wales in his statistical review for 1932 again has drawn attention to the fact that the current birth rates are inadequate to continue for an indefinite period the increase of the population. It is pointed out that if the birth rate does not increase appreciably the growth of the population will tend to diminish so that in the course of time, and it appears that it may not be far distant, the stage will be reached when births and deaths are equal, after which a reduction in population will occur. Moreover, while babies are becoming fewer, the reverse is the case as regards old people. This happening is described in the review as "an outstanding feature of our vital statistics". Centenarians were, in the period dealt with, comparatively numerous. Among the deaths registered during the year 1932 there were 109 reputed to have been over one hundred years of age, fifteen of whom were males and ninety-four females. In the preceding years the number of centenarians was ninety-eight, sixty-one and ninety-one respectively. It is somewhat curious that in England and Wales it is only in extreme old age that female mortality has not declined more than male since the middle of the last century.

Perhaps the most impressive part of the review is that which discusses the effect of overcrowding and lack of sunshine on the death rate. Special studies were made of the death rates in the years 1930-32 in towns and country districts in relation to the amount of overcrowding, their geographical situation, and the annual hours of sunshine they received. The census reports made such comparisons possible. Infant deaths under one year of age, to each 1,000 born, averaged in the three years in which this matter was investigated 57.6 in the country boroughs having densities of population less than 0.7 persons per room, to 92.7 in towns having more than 1.15 persons per room. The infant death rate from premature birth and injury at birth in 1931-32 was 22.9 in the north, and only 16.8 in the southeast of England, the rates following the reverse order of the amount of annual sunshine recorded. As may well be believed, the average risk of dying in overcrowded localities was greatest among children under five years of age, and became of diminishing importance with the advance of age.

All the facts set down in the review emphasize the ill effects of overcrowding and the lack of sunshine. Overcrowding creates unfavorable social and economic conditions and, of course, increases the danger of "droplet" and other infections. The effect of diminished solar radiation with which may go, and not infrequently does go, a higher degree of atmospheric impurity, on the mortality of young children, excluding the less obvious manifestations or sequelæ of rickets has been proved to be injurious to health especially in the case of children of a tender age. More overcrowding and less sunshine, more sickness among children under five years of age, may be regarded as an axiom.

The Control of Diphtheria

Of course, a generation or so ago diphtheria was considered among the most dangerous and fatal infectious diseases, especially in the case of children. The discovery of the germ and the preparation and use of an antitoxin reduced greatly mortality. The next step in advance was the discovery by Professor Schick of Vienna of a test by which susceptibility to the infection could be gauged beforehand. Also because of this test preventive or immunizing measures could be taken with such success on a large scale that in the majority of cases these have been effective, and in consequence the incidence of diphtheria where immunization has been practised is greatly less than formerly, and also, when contracted, it is in a much milder form.

Recently in Britain there have been outbreaks of a graver type of diphtheria and a wider extension of systematic immunization. It appears then that if immunization against diphtheria became general, in course of time virulent infection would disappear and that when it did occur, at any rate, a milder type of the disease would manifest itself.

Charles A. Clouting.

Letter from Denmark

(From our own correspondent)

The Neurasthenic Who Escapes from a Surgical Hospital

Many recent investigations in Denmark concern the fate of patients many years after discharge from hospital. These follow-up studies are particularly fruitful in a small country in which it is very difficult to get lost. One of the most instructive of these studies has just been conducted by Dr. J. M. Wollesen, who has enquired into the subsequent fate of the eleven men and seventy-three women who, in the period 1922-1932, were discharged from a surgical hospital with the diagnosis of "nervosismus", neurasthenia or hysteria, after having been thoroughly overhauled by the aid of all the appliances a modern hospital possesses. As many as thirty-seven of these patients had undergone what might best be described as a process of surgical erosion or attrition in various hospitals. Several of them had been on the operating table more than once, and in the process had shed their appendices, gallbladders and various other structures to which a certain class of surgeon is addicted. Of the sixty-seven patients who were traced, fifteen were found to have been perfectly well, and nine much better, ever since their discharge from hospital. But with only two exceptions, these patients had undergone no operation.

The lesson of this investigation is clear. You cannot take away the aches and pains of a neurasthenic by taking away her appendix or any other organ to which, in the absence of definite proof to the contrary, she has greater claims than her surgeon.

Decline of Syphilis in Denmark

It really seems as if we are not far from the day when a teacher will say to medical students: "Have a good look at this chancre, for you may never see another." The Wassermann reactions of the whole country are concentrated in the State Serum Institute in Copenhagen. This centralization assures reliable information as to the incidence of syphilis from time to time. In 1923 there were 2,326 new cases of acquired syphilis. During the next three years there was little change. Indeed, in 1926, there were as many as 2,469 new cases. But from this year onwards, there has been a dramatically rapid decline. The figure for 1931 was only 1,318. In 1932, it was 782! So since 1926, the incidence of syphilis has declined to less than a third. The fact that specific treatment is provided free of charge has contributed not a little to this achievement which is as astonishing as it is encouraging.

Ole Fagervik.

Book Reviews

Mouth Infection

Mouth Infection. Clinical Histories. By Oliver T. Osborne, M.A., M.D., F.A.C.P., Professor of Therapeutics, Emeritus, and formerly Clinical Professor of Medicine, Yale University. New Haven, 1934. Pp. 119.

Oliver T. Osborne has written a most interesting book. He discusses focal infection in the mouth and has definitely shown through case histories how these focal infections can be distributed to remote districts throughout the body. He first cites a group of cases where the symptoms were generalized, and then he goes on to various organs and systems that are affected through what he believes to be an original mouth condition. In spite of the fact that the mouth has often been regarded as a focus of infection, the average physician may frequently overlook an examination of the mouth on account of being so deeply interested in the patient's chief complaint, which may be a disturbance of the thyroid, the heart, or any one of many nervous complications. The mouth is a relatively small area in most people, but it contains quite an area of bug catchers when we think of the gums, teeth, tonsils, and all the intermediate and adjacent tissues. It will be interesting to ascertain if congressmen have more mouth infections than other people.

OLIVER T. OSBORNE

Osborne goes on in a simple fashion to speak of Vincent's infection. He then mentions various diagnostic leads that can be gotten from the examination of the tongue which should be of value to the practitioner.

The entire book is written with great simplicity, and you can be assured that you will find valuable information and not be bored in the reading.

Medical Practice

A Manual of the Practice of Medicine. Prepared especially for Students. By A. A. Stevens, A.M., M.D., formerly Professor of Applied Therapeutics in the University of Pennsylvania. Thirteenth Edition, Revised. Philadelphia and London: W. B. Saunders Company, 1934. Pp. v-685.

In this, the thirteenth edition, much obsolete matter has been deleted, numerous additions have been made, and many sections and paragraphs have been entirely rewritten, bringing it up to date. Subjects discussed for the first time or considerably extended include megacolon, toxic cirrhosis of the liver, subacute glomerulonephritis, arteriosclerotic nephritis, changes in the chemical constituents of the blood, von Jaksch's anemia, agranulocytic angina, hereditary thromboasthenia, hyperadrenalism, hyperparathyroidism, hypoparathyroidism, diseases of the reticuloendothelial system, acute coronary occlusion, congenital heart disease, arterial hypotension, massive collapse of the lung, psittacosis, hyperinsulinism, acute serous meningitis, spontaneous arachnoid hemorrhage, osteitis deformans, osteitis fibrosa cystica, and epidermophytosis.

Under each disease are given the definition, etiology, symptoms, diagnosis, prognosis and treatment, in this way making this manual an excellent handbook for the medical student. Its conciseness is a noteworthy feature and it admirably fills the place for which it is intended.

Handbook for Tuberculous Patients

Rules for Recovery from Tuberculosis. A Layman's Handbook of Treatment. By Lawrason Brown, M.D., Saranac Lake, New York. Sixth Edition. Thoroughly Revised. Philadelphia: Lea & Febiger, 1934. Pp. 275.

In this very useful little manual, the author logically explains to patients the reasons for giving certain advice and rules for health, thereby helping him to avoid blunders of omission and commission. He recommends that the book should not be hastily read and laid aside, but should be reread more slowly, chapter by chapter, day by day, for with increasing knowledge new facts will be discovered, when it will serve as a book of reference, a handbook, so to speak, of the fundamental principles of the cure. An attempt is made "to stimulate interest, to impart knowledge," and so to form and to strengthen the character.

In this edition, new chapters on the surgical treatment of pulmonary tuberculosis, how to get on one's feet after more or less prolonged bed rest, practical hints about the use of vitamins, new data about alcohol and tobacco, the amount of energy expended in various forms of work and exercise, the vaccination of children to prevent tuberculosis, have all been added, bringing the book abreast of modern medical progress. Even healthy individuals may read this book with pleasure and learn much about the preservation of health. The author's style is interesting and intriguing.

Allergy and Immunology

Allergy and Applied Immunology. A Handbook for Physician and Patient on Asthma, Hay Fever, Urticaria, Eczema, Migraine and Kindred Manifestations of Allergy. By Warren T. Vaughan, M.D., Richmond, Virginia. Second Edition. St. Louis: The C. V. Mosby Company, 1934. Pp. 420.

The frequent changes in the concepts of allergic conditions makes frequent revision of textbooks on the subject necessary. An increasing importance must be granted to physical allergy, but the author believes that it is only a secondary factor in most instances. Probably the most outstanding general development in recent years is that of contact dermatitis, in which the great variety of possible allergic substances must be recognized, especially in the dermatological mucosas, with associated hypersensitiveness. In pediatrics, allergy is a most important factor in infant feeding. Gastroenterologists recognize the increasing importance of the manifestations of allergy. The entire medical world finds allergy one factor in a great variety of diseases.

The author has adhered to his original program of giving the reader an adequate understanding of the subject without complicating the discussion with technical details of therapeutic methods. An appendix contains various directions for the patient to facilitate better cooperation between him and the physician. The book is intended as an authoritative work to appeal especially to the layman and the general practitioner. It tells of the nature of allergy and how it affects the individual; the substances which provoke symptoms; the methods for determining the causes of an allergic illness; the measures taken to secure relief; the results to be expected from treatment; the symptoms associated with this malady and other diseases in the treatment of which allergical or immunological principles are employed. It also includes allergy questionnaires, directions for autogenous dust collections, for collecting molds, for keeping a food diary, a pollen allergy record card, elimination diets, grouping a food allergens, a diet for allergic infants, and a complete bibliography.

Wars, Whirligigs and Windmills

Triple Challenge of War, Whirligigs and Windmills. By Hugh Wansey Bayly, M.C. A Doctor's Memoirs of the Years 1914 to 1929. With seventeen illustrations. London: Hutchinson & Co., 1935.

Triple Challenge is well named, as it recalls the fearless fights of a British doctor in the three fields, war, politics and medicine. The book is full of pep and provocation and like every book outspoken on many controversial subjects, will meet with cordial agreement and vehement opposition. Dr. Wansey Bayly obviously tries to be fair and is chivalrous to persons whose methods he attacks, giving honor and praise to as well as scathing criticism of opponents. He holds that the sinking of the *Lusitania,* after due warning in the American press, was a legitimate act of war and expresses his admiration of the German navy air force and machine gunners. He feels that he is competent to pass a more or less expert opinion on these latter points, as he himself served in the war as medical officer in the British Navy, then in a similar capacity with the Scots Guards and with a brigade of Army Field Artillery on the Western Front.

Dr. Bayly believes that the main value of the doctor, whether military or civil, is in the prevention of disease rather than in its treatment when contracted, and his remarks concerning sanitation in the field and the prevention of venereal disease in civil life, in which he has taken a leading part, should be read by all military and public health doctors. By the way, Dr. Bayly is the author of one of the most useful books on venereal disease ever published and which has been reviewed in this journal.

His chapter in the book now under review on "Doctors and the Public" is worthy of the attention of his colleagues in this country. Dr. Bayly considers that there is historical evidence that national sobriety is "in precise proportion to past experience of alcohol" and asserts that good beer taken in moderation is a healthy and harmless beverage and food. In his opinion "one specialist has existed from dim prehistoric times and woman is her name." He pays tribute to her indisputable eminence in the training and education of young children and in the nursing of the sick but contends that her specialism is in physical creation rather than in creative thought.

Every one of the twenty-one chapters of the book is interesting especially to doctors, as even in the sections on war and politics, the health viewpoint always emerges. Perhaps the chief merit of the book is that it is stimulating and provocative of thought as well as of argument. Many will disagree with some of the views and opinions expressed. A few of the views will make several readers "hot under the collar," but this is all to the good and really these retrospective reminiscences and somewhat dogmatic statements make the book most arresting and readable. The illustrations are numerous and excellent.

Bronchial Asthma

The Etiology and Treatment of Spasmodic Bronchial Asthma. By H. Gordon Oliver, M.D. With a Foreword by W. Langdon Brown, M.D., F.R.C.P., Regius Professor of Physic, Cambridge University. London: H. K. Lewis & Co., Ltd., 1934. Pp. vii-48.

The problems of asthma involve subjects of the most topical interest: sensitiveness to foreign proteins, vagotonia, endocrine imbalance, and psychotherapy, giving rise to much intensive research. Van Leeuwen called attention to the importance of certain particulate material in the production of paroxysms and Gordon Oliver has found that in his cases monilia is a specific agent, which acts by liberating free histamine, which is known to play a part in many allergic reactions. The results the latter has obtained with vaccine treatment are striking and interesting, as is also his view that the value of iodides in this syndrome is due to their fungicide action. Hence his belief in much larger doses than are usually given. While there may be differences in opinion as to the author's conclusions, there can be none about the excellence of his work and the systematic and scientific manner in which it has been done.

The first part of the monograph is concerned with the bronchial spasm or muscular contraction theory, the vasomotor turgescence theory, the inflammatory theory, the psychological factor — vagotonia, the allergic hypothesis, heredity, climate and season—drug sensitiveness—locality, time of onset, and altitude. The second part deals with the results from a mycotic infection, asthmatic sputum, argument supporting the hypothesis, symptomatology, treatment and conclusions. Fifty cases are summarized. A list of references is given.

Biological Tables

Tabulæ Biologicæ Periodicæ. Ed.: W. Junk, Unter Mitwirkung von zahlreichen Fachgelehrten. Herausgegeben von C. Oppenheimer und L. Pincussen. Band III, Nr. 4. Berlin: W. Junk, 1934. Pp. 321-436.

This number contains tables referring to proteases and amidases and also those on the native habitat, uses, number of chromosomes, and the botanical and technical characteristics of cultivated plants.

Volume IV: No. 1 deals with biological oxidation-reduction systems, respiratory pigments (chromoproteids), energetics of the contractions of cross-striped skeletal muscles; light, darkness and radiation as factors in seed germination; on myriapods, and blood groupings I. No. 2 presents tables on blood groupings, the kidney, the mercurial content of various substances, and lichen acids. No. 3 presents tables on the less widely distributed elements in the body, human evolution, and the biology and toxicology of the chemical means of warfare.

Critique

The Pursuit of Science Old Henry E. Armstrong, dean of British chemists, in *Nature* (London), for December 4, 1926, said that "The pursuit of science is necessarily an antihuman practice as it involves an all but impossible self-abnegation and a modesty which is more rare. Let us admit that publication is largely a matter of personal advertisement; we shall then realize what is desirable in the interests of scientific altruism." For many years now this acidulous but very wise old gentleman has been trying to tell chemists especially and scientists in general what science is all about. He has not made a great deal of progress but he has had a lot of fun, and he is still at it. Great age does not diminish his ability to instruct with rapier-like thrusts.

Sciosophy What is sciosophy? The word was coined by Dr. David Starr Jordan in 1899 to "meet a long-felt want," as he expressed it in the *Scientific Monthly* for February, 1927. In these days of radio howling dervishes it has ample justification for wider usage for it denotes the science of ignorance. In action it is often called magic and latent magic is mystery. Sciosophy differs from ordinary science in its basis; it is not derived from tested, verified human experience. That is because life is short and humanity .demands quick-quack remedies for all things. Sciosophy recognizes no definite relationship between cause and effect, for these are slow devices. It does not need instruments of precision, logic, mathematics, telescopes, microscopes, or scalpels. Its processes are instantaneous and intuitional. Scientific testing and logical thought are slow and laborious. It seems folly to wait for wisdom when tradition, memory, impulse, imagination, and intuition point straight to the truth, consequently European dictators and would-be American dictators have not waited. They feel, being sciosophists, that one conception is quite as good as any other and often a great deal better, a philosophic notion as old as Pyrrho.

Sciosophy occurs in two major forms. The first is solidly based upon tradition, i.e., upon our record of the guesses made by able men in the past who labored without instruments of precision, and who knew only what they thought they saw. They tied their successors to the hitching post of their own thought systems. The other form has its basis in the imagination and knows no bounds save varying degrees of vividness, color, and mendacity. Well surrounded as we are by sciosophists these days, professional and amateur, it might be well for us to use this word, coined by Dr. Jordan so many years ago, much more frequently than we do.

Sciosophy often invades science. We read, for instance, that certain weak liquid antiseptics slay the germs of the mouth. We see fat booklets full of graphic curves showing how rapidly and effectually this germ killing goes on. The average layman is naturally convinced. Obviously the antiseptics are great germ-destroyers. In reality they *do* kill germs. Put some of the antiseptic in the mouth and plate a sample every five minutes. After the first minute the number of mouth germs per cubic centimeter may drop as low as six hundred from a potential eight hundred thousand to three, five, or even ten million germs often found per cubic centimeter in the mouths of normal people in good health.

Plate another sample every minute for the full five minutes, however, and there will be found an increasing number of germs in the mouth *right while you hold the antiseptic there*. The five-minute plating may show about sixty-one thousand germs per cubic centimeter. Then rinse the mouth well with sterile water, wait ten minutes, plate again, and the mouth usually contains even *more* germs than before the antiseptic mouthwash was used! So the stuff does kill germs exactly as advertised. But the killing bears no essential relationship to the maintenance of sound bodily or oral health. Moreover, by carefully picking out normals with low mouth-germ populations, and by carefully discarding "unfavorable" results, it is quite possible to put into the fat booklets graphic curves that look very favorable to the mouthwash in question. So modern sciosophy goes on its merry way.

Scientific and Cultural Notes Physicians attributed to the ether the following qualities: Greater rigidity than that of steel; a density many millions times greater than that of lead; yet an attenuation so great that the stars and planets could swim through the ether entirely unimpeded at huge velocities and without the slightest indication whatever of retardation or friction.

In 4000 B.C. King Chata announced his new and remarkable formula to promote the growth of the hair; it consisted of: one pad of dog's foot, one fruit of date palm, one hoof of the ass, boiled together in oil and apply *ad lib.* to the head of the other ass who believed in the efficacy of the remedy.

In 1927 President Coolidge extolled George Washington as a business man. This he did to salute George on his birthday. But when Representative Celler came to praise George on the radio he was not permitted to state that our first President occasionally lied, as historical data prove, or that he liked good wine, or that he paid for rum which was given to his political constituents. The Representative had to soften history for the tender ears of the American public. He had to change the word "gamble" to the less horrid word "wager" and he had to dilute Washington's healthy "By God!" to a mere ladylike "By Heaven!"

Chinese Methods of Warfare In 1917 one Chang Hsun held the Temple of Heaven and one Twan Chi-sui desired to evict him. But Chang was stubborn. So Twan sent him a colonel with $70,000 expense money. He sent with the colonel a note to Chang's garrison saying it was a shame to fight, because it was poor business to waste expense money in powder and shot. It would be much more civil just to share the expense money and call the war finished. The commander of the garrison heartily agreed, if given a little larger share of the money. This dispute was settled quietly in a game of mah-jongg and everybody was happy.

Another Chinese general loaned his army to yet another and then himself retired. "If you win," said he to the other general, "we will jointly announce that you acted under my orders. If you lose, I shall say that you inspired disaffection in my staff, forced me to flee, and usurped my command. I shall then demand your head, but during the campaign I shall remain silent and avoid comment."

Damned clever these Chinese, as I have said before and will say again. Indeed I think they are a damned sight more clever than Occidental militarists.

THE CRITIC.

Medicoliterary Notes

A volume intended primarily for the instruction of the layman in matters concerning heredity, especially in its connection with disease, is Dr. Otto L. Mohr's *Heredity and Disease,* a recent publication of W. W. Norton & Company. Although Dr. Mohr is a great technician, being professor of medicine at the Royal Frederiks University of Oslo, and although the material which he has incorporated into his book was originally a series of lectures delivered by him a few years ago at Harvard Medical School, he has simplified his language and omitted many of his technical terms in an effort to make his book intelligible to and readable by the layman who desires authentic up-to-date scientific information on the subjects of heredity and its connection with disease, genetics, sex determination, alcohol, intermarriage, birth control, sterilization, and many other related problems of the day.

* * *

An interesting foreign thesis presented this year is that of Dr. André Adnes of Toulouse, France, on *Shakespeare and Mental Pathology.* The thesis discusses in full Shakespeare's own knowledge of and reference to the curious and sometimes abnormal "quips and cranks" of the human mind, with comments upon the great Elizabethan's remarkable psychiatric insight. A feature of the thesis is a bibliography of all critical psychiatric literature which has appeared in connection with Shakespeare and his writings.

Although the following excerpt from the *New York Times* is not 'medicoliterary,' it is certainly most enlightening as to that close ally of medicine, human psychology. At any rate it is too good not to quote: "Barrett Willoughby, whose new novel, *River House,* will be published in August by Little, Brown & Company, wrote her first article—a sketch of the people in the Alaska town where she had lived—while she was a homesick art student in Boston. The folks back home didn't like it. Miss Willoughby's mother wrote to her as follows: "Dear Daughter: Every one here is reading your piece in the magazine. Perhaps it would be better if you wrote about subjects outside your home town. . . . Your brother has had three fights this week. . . . Your father is paying the hospital bills of Nosey Owen, whom he was obliged to beat up because Nosey criticized your article so severely. The laundry lady has written a ten-page letter to the editor of the magazine telling him you are a liar, and all the Indians and halfbreeds have withdrawn their trade from our store and gone over to our competitor." Thus the prophet in his own land!

* * *

The League of Red Cross Societies, with headquarters in Paris, has made its *Monthly Bulletin* for March a memorial number for Judge Barton Payne, former chairman of the American Red Cross and of the Board of Governors of the League of Red Cross Societies. The *Bulletin* does not repeat the fine portrait of Judge Payne, which served as frontispiece of its February issue, but it publishes several reproductions of photographs of him in characteristic poses and acts. There are tributes to the man and his work by Colonel Draudt of Germany; the Marquis de Lillers of France; Enrique Conill of Cuba; S. Yamanouchi of Japan; Max Huber, president of the International Red Cross Committee; J. Athanasakis, president of the Greek Red Cross; James L. Fieser, vice-chairman of the American Red Cross; the Hon. Sir Arthur Stanley, president of the British Red Cross, and Georges Milson, director of the Junior Red Cross. A sketch with portrait of Rear-Admiral Cary T. Grayson, who succeeds Judge Payne as chairman of the American Red Cross, is included.

* * *

The Doctor's Bill is the title of Dr. Hugh Cabot's recently published discussion of how the physician's patients are going to meet payment on his bill, or, to put it more technically, how the community, as a whole and individually, can best meet the increasing cost of medical care. Dr. Cabot, although not forgetting the social and economic aspects of the problem, devotes his attention chiefly to its many and varied medical aspects. After his almost forty years of practise of and experience with medicine, Dr. Cabot is well fitted to discuss the matter, as he does, with the fine tolerance of wide experience, the knowledge of the technician, and the understanding of the humanitarian. The book opens with a historical survey of medical practice, showing its contributions to social, economic and scientific life. Present-day conditions and problems are discussed with reference to European as well as American attempts at solution, with wise counsel as to the danger of importation and application of foreign measures to the differing conditions in our own country. The final section of the book studies the medical needs of the United States, with recommendations and suggestions for meeting them, with indications of some of the author's own views as to solution.

* * *

For help in locating any elderly folk who may remember Dr. John Gorrie, many years ago a practitioner in Apalachicola, Florida, W. T. Cash, Florida State Librarian at Tallahassee, has sent out an appeal in behalf of the recently organized Dr. John Gorrie Memorial Foundation, says the *New York Times.* Mr. Cash would like to collect anecdotes, recollections, old documents, newspapers or letters bearing on any phase of the life of Dr. Gorrie, who was prominent just before the Civil War. One of the claims made for him is that, in his efforts to find some means of cooling hospital rooms for his patients, he discovered the principles of artificial ice-making and refrigeration, as we now know them, and publicly made the world's first artificial ice on July 14, 1850, his invention being patented the following year.

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NEW YORK, WEDNESDAY, JUNE 19, 1935

Medicolegal Notes

Not Liable for Accidental Breaking of Tonsillotome

In an action for malpractice in so using a Sluder La Force tonsillotome instrument that the cutting blade broke and a triangular piece of steel about five-eighths of an inch on each side, dropped into plaintiff's throat, remaining in her body for about seven and a half years, when it was discovered and removed by an operation, the Utah Supreme Court, Passey vs. Budge, 38 P. (2d.) 712, held the evidence insufficient to show that the broken piece of steel taken from plaintiff's body was a piece of a broken blade from a Sluder La Force instrument.

Assuming that the facts were as plaintiff alleged, however, the court said that had defendant actually known of the alleged piece of steel passing into plaintiff's throat during the operation, it could not be said that permitting such a piece of steel so to drop into plaintiff's throat was other than an accident, or that permitting it to pass through the alimentary tract was negligence. Plaintiff produced no expert testimony on this matter. Four reputable physicians testified that such an object would pass through the body by the ordinary processes without injury or pain. Such pains as plaintiff had in her throat the doctors said were the expected result of the tonsil operation. Judgment for defendant on a directed verdict was affirmed. Two judges dissented, holding that the issues were for the jury.

Autopsy to Show Cause of Death

A physician who performs an autopsy is not in a less favorable position to determine the cause of death than one who treated the deceased before his death, the Louisiana Court of Appeal holds, Lads vs. First Nat. Life Ins. Co., 158 So. 878, holding admissible the testimony of a pathologist who performed an autopsy on the insured, offered to show that his death resulted from a disease not covered by a life policy, expert evidence in such cases having been to the effect that an autopsy is the most reliable method of determining the cause of death, and in many cases the only one.

Removal of Sponges as Part of Operation

The removal of all sponges used is part of a surgical operation, and, when a physician or surgeon fails to remove a sponge he has placed in his patient's body that should be removed as part of the operation, he thereby leaves his operation uncompleted and creates a new condition which imposes upon him the legal duty of calling the new condition to his patient's attention and endeavoring with the means he has at hand to minimize untoward results likely to ensue therefrom. Davis, C. J., in Smith vs. Zeigler, Florida Supreme Court, 157 So. 328.

Agreement Not to Practise Held Valid

A contract by a physician and surgeon on the sale of his office equipment, medical business, fixtures and good will not to open offices within two specified counties for general or special practice of medicine or surgery for five years was held valid under section 1674 of the California Civil Code providing that the seller of a good wil of a business may agree with the buyer to refrain from carrying on a similar business within a specified county, city, or a part thereof so long as the buyer or anyone deriving title to the good will from him carries on a like business therein. Crutchett vs. Lawton (Cal. App.) 33 Pac. (2d.) 839.

X Ray Department Part of Hospital

In an action for a patient's death from an x ray burn it was held, Ritchie vs. Long Beach Community Hospital, (Cal. App.) 34 P. (2d.) 771, that the fact that the x ray department of the defendant hospital showed a slight excess of receipts over operating expenses did not require that it be considered apart from the hospital in determining whether the hospital was a charitable institution, such a department being an essential and integral part of a modern hospital.

The character of the hospital as a charitable institution and its due care in the selection of its servants being established, it was not liable for a servant's negligence in operating the x ray machine although it did not plead such due care in selection.

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(Formula Dr. John P. Gray)

which has been prescribed by physicians for over 42 years for those patients just recovered from respiratory infection or where prolonged illness has lowered general resistance. It is an aid to more rapid renewal of strength, a protector against relapses or secondary infections due to lowered vitality.

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The active ingredients of

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NUTRIO PER ME
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MEAT JUICE.
The result of an Original Process of preparing Meat and extracting its Juice by which the elements of nutrition are obtained in a State ready for immediate absorption.
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HOW TO RID YOUR BOARDERS OF B. L.*

"Do you suffer from periodic pain and discomfort? Possibly you are sitting on a tack, or in a draft. You should demand a lunacy hearing. Many women suffer periodic pain and discomfort and even go into comas and other punctuation marks when they do not have sparkling eyes and a clear chin. Examine your shanks; if they have shrunk, then the fabric should not have been labeled fast dye. Some dyes are too slow for some women. Next time get the Pink Ham's tablets and when they go rattling down your colon, your fifteen miles of kidney tubes, and wake up your liver boil, you'll feel like another person and quite able to attend any interesting public function, such as a cocktail party or a decapitation."

This is some of the advertising now being used to foist upon the public yet another piece of brazen quackery. It positively makes the Council's backs (and lower down) ache to consider such goings on. This ache is not periodic, so the pills won't work on it. But Mrs. Tobias O'Tweedy was in bed two days. She writes that all during the month she felt fine and then she stayed in bed two days. This argued no little heroism on her part for there are some of the most ravenous bugs in the O'Tweedy beds that we ever met anywhere. Dr. Tweedy O'Toole's wife did somewhat better by only staying in bed a day or two every two months. Her back and her mother-in-law bothered her periodically. She now has no more trouble. Her mother-in-law is dead and she broke her back.

In consequence this medicine was first examined by laboratory means and was then put to the critical test by expert clinicians trained in our best correspondence schools in the art of absent treatment, or curing bow legs by mail. The preparation, when evaporated under high vacuum and afterwards ashed, proved to be composed of equal parts of chow mein, bamboo, alfalfa, herring bones, and porcupine quills. If you treat it with Malaga, New Jersey, it precipitates itself in all directions and the floor is so difficult to keep clean that you might as well have a large dog around the house. It is very easy to see that no such preparation could possibly relieve periodic pains. It would not even relieve continuous pain periodically. Whereupon Dr. Tweedy O'Toole, who is always ready to risk everything for science, decided to take a large dose of the stuff himself and since then his secondary sexual characteristics have shown a strong trend towards the distaff side, if we convey. The question then arose as to whether we should accept the product.

This problem was put before a select committee of five who met as a unit in a telephone booth and it was on this momentous occasion that the chairman repeated those famous words:

"Hell, we need the advertising, don't we?"

The meeting promptly adjourned and the Council therefore tried its own hand at writing advertising for the accepted product. In concluding this report a small dash of this will be given with a garnish of parsley; send your name in to the nearest institution for the mentally unemployed and arrange for your own lunacy test. The advertising now reads:

"Have you ever had twins? Then you know what it is to feel two-fifths as bad as Mrs. Dionne. (If you prefer Bourbon add ten percent to your remittance and we will get it out of the same barrel as the Straight Greek Rye.) Centrally located five-room flat for rent.[1]"

"Don't be embarrassed by having your teeth slip out; get a lift with an elevator. Use Spasm's Clutch-Grip Teeth and his best white sand. Sprinkle a little under your teeth and you will never know what it is to have a moment without pain. No more periodic pains. Not by a damned sight. You'll be in pain all the time and only Pink Hams can cure you.

"Many ladies write in to us innocently asking how to get Pink Hams. It's the simplest thing in the world. You just get some good red rouge with camphor in it and roll up your . . . sleeves and smear the hams pink. There is nothing to this at all, unless some peeking man is standing around, and even then there is sometimes nothing to it. That all depends on the hams. This is the kind of thing your best friend won't tell you. But the modern woman cannot afford to be bothered with cramps, periodic discomforts, gnats, flies, bedbugs, cockroaches, backaches, or body lice which tend to interfere with the healthy normal activities she prefers to undertake, such as getting swizzled in some man's apartment and going to sleep under the table after too much of a guzzle.

"Nasal irritations and often the nose itself may be removed by this simple method of rehabilitating nasal protuberances. Rice and pork make an excellent dish for a bachelor's dinner; setter pups for sale cheap. (We assume you get the hang of this now though it confuses us somewhat as to how the bachelor's dinner got in here. It was to have been served at Park Avenue and Ninety-Second Street, but no matter, possibly the butler lost count, there are so many streets and the thing that bothers us is whether there are more numbers than streets, or which would you run out of first.) Gas bills are cut in half by the use of this appliance, totalled, paid, receipted, and filed away. Use 666,666,666,666,666 for colds, fevers, and headaches; it will be found twice as good as 666,666 or four times as good as 666. Don't stay in bed two days. Make it a week."

---

*(B. L. = Body Lice.)

[1] Time out from the quotation marks must be taken here to explain that certain members of the Council are in the whiskey business and one has a flat to rent. We could see no good reason why they might not break into the advertising at appropriate points and get a free ride, just as people do at funerals, or tenors when they get through singing and say "Good night, Mother, you old razzle-de-dazzle you."

FOR IODINE RESULTS WITHOUT THE USUAL IODINE DISTURBANCES

ORGANIDIN—WAMPOLE

A STABLE PREPARATION OF
IODINE ORGANICALLY COMBINED
FOR INTERNAL ADMINISTRATION

Freely miscible with water. Contains no free iodine, alcohol, hydriodic acid or inorganic iodides.

ORGANIDIN is absorbed and eliminated continuously and slowly, greatly increasing its therapeutic efficiency, while avoiding undue toxicity—a maximum effect with a minimum dose.

A superior product which may be administered over an extended period of time with little probability of causing stomach disturbances or developing iodism.

Supplied in 1-oz. bottles
accompanied by medicine dropper

PREPARED SOLELY BY
HENRY K. WAMPOLE & CO., INC.
MANUFACTURING PHARMACISTS
PHILADELPHIA - - U. S. A.

ONE FLUIDOUNCE
Organidin
A Stable Preparation of
IODINE
ORGANICALLY COMBINED
For Internal Administration
PREPARED BY
Henry K. Wampole & Co.
Incorporated
MANUF'G PHARMACISTS
PHILADELPHIA, U. S.

THE NEW Biologic Treatment for Gonorrhea

Gon A-Vee
GONOCOCCUS COMBINED ANTIVIRUS

Clinically
Proved . . .

HOSPITALS, Prison Clinics, Boards of Health and thousands of physicians have already used Gon A-Vee for the treatment of SPECIFIC and NON-SPECIFIC, ACUTE and CHRONIC URETHRITIS. Its ease of application — the uniformly excellent results which follow — the simplified routine have converted hundreds of clinicians to its use.

G. H. Sherman M. D., INC.
BACTERIOLOGICAL LABORATORIES
14612 EAST JEFFERSON AVENUE, DETROIT, MICH.

Gon A-Vee is an antivirus treatment which is used at the focal point of infection. It is in a distinct class by itself. Its amazing performance in particularly stubborn cases is worthy of your consideration and use. The coupon below will bring you complete data.

SEND IN THIS COUPON

Gentlemen:

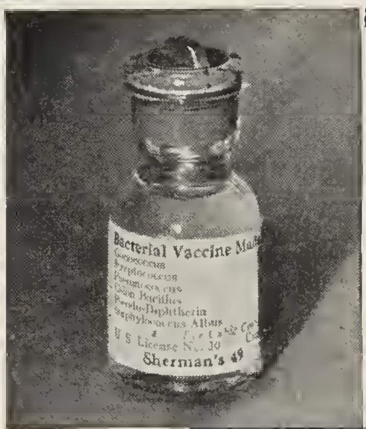
☐ Send me clinical data on Gon A-Vee.

☐ Ship me one week's treatment Gon A-Vee and free five cc. vial of Sherman Vaccine "49".

Dr. ....

Address ....

City and State ....


Bacterial Vaccine
Sherman's 49

Sherman Gonococcus Vaccine "49" is recommended as an adjuvant to Gon A-Vee.

Gon A-Vee
Bacterial Antigen Made From

Gon A-Vee comes 14 tubes to the package or one week's treatment. $3.00 to physicians.

Booklets

You can learn more about the products advertised in the Medical Record *by sending for the booklets listed below. We shall be glad at all times to obtain clinical samples whenever possible.*

MR 2 *Bischoff Pharmaceutical Specialties.* A catalog of Bischoff products which can be depended upon for their potency, uniformity and stability. Ernst Bischoff Company, Inc., 135 Hudson Street, New York, N. Y.

MR 4 *(a) Agomensin (b) Cibalgine, (c) Coagulen. (d) Coramine. (e) Dial. (f) Digifoline. (g) Lipoiodine. (h) Nupercaine. (i) Nupercaine Spinal. (j) Nupercainal. (k) Peristaltine. (l) Phytine. (m) Prokliman. (n) Resyl. (o) Sistomensin. (p) Vioform. (q) Compendium.* Ciba Company, Inc., 627 Greenwich Street, New York, N. Y.

MR 6 *(a) The Food of the Infant and the Growing Child.* The purpose of this booklet is to acquaint mothers with some of the fundamental principles of the nutrition of infants and children. *(b) The Miracle of the Match.* Comparing the crude fire-making implements of savages with the modern convenience of a match, and then comparing the slow nutrition of heavy foods with the quick, vitalizing energy of Karo Syrup. *(c) Help Yourself to Energy.* The purpose of this booklet is to show how Dyno, which is pure dextrose, is a valuable energy producer. Corn Products Refining Company, 17 Battery Place, New York, N. Y.

MR 7 *(a) Geneserine.* Showing a new method of treating common everyday cases such as neuromotor dyspepsia, cardiac troubles of sympathetic origin, postoperative symptoms (abdominal distention, nausea, anxiety, ileus), intestinal ileus. *(b) Genoscopolamine.* Used in paralysis agitans, twilight sleep, and to prolong anesthesia during surgery in conjunction with morphine, and to alleviate postoperative pain. *(c) Constipation.* This booklet gives complete facts concerning the value of Taxol in the treatment of constipation. Lobica Laboratories, Inc., 1841 Broadway, New York, N. Y.

MR 8 *(a) The Pneumonic Lung.* The physical signs and pathology. The text matter is the result of an exhaustive study of the literature of pneumonia in its different phases, and the illustrations are reproductions of paintings made especially to elucidate the text. *(b) Pregnancy, Its Signs and Complications.* Pointing out the specific uses of Antiphlogistine in pregnant women. *(c) Infected Wound Therapy.* Showing the value of Antiphlogistine in the treatment of infections. Denver Chemical Mfg. Co., 163 Varick Street, New York, N. Y.

MR 9 *The Dionol Preparations.* Presenting the ingredients, indications and method of application of plain, methylated, iodized, emulsified, nasal and proctologic Dionol. The Dionol Co., 4210 Trumbull Ave., Detroit, Mich.

MR 10 *(a) Pulvoids Natrico.* For the symptomatic treatment of high bloodpressure. *(b) Colloidal Sulphur in Chronic Arthritis and Allied Conditions.* Including suggested methods for determining the cases suitable for sulphur therapy and the progress of the disease. With abstracts from recent literature. Sent to physicians on request by the Drug Products Co., Inc., 26-45 Skillman Ave., Long Island City, New York.

MR 11 *Gastron.* The entire gastric gland extract in a hydrochloric acid aqueous menstruum. Fairchild Bros. & Foster, New York, N. Y.

MR 12 *(a) A Few Notes Regarding Psychoanalysis.* The purpose of this brochure is to present the practical working essentials of this subject by which the physician may introduce himself to its simpler practice. *(b) The Therapeutic Value of Chemical Foods.* This booklet emphasizes the necessity of establishing normal metabolism and the part that mineral salts play in the maintenance of the health and vigor of the body. Fellows Medical Manufacturing Co., Inc., 26 Christopher Street, New York, N. Y.

MR 13 *A Reference List of Harrower Endocrine Products.* A detailed list of effective pluriglandular formulas and a number of uniglandular active principles of exceptional potency, which are biologically standardized whenever possible. The Harrower Laboratory Inc., Glendale, Calif.

MR 14 *(a) Improved Guide.* Complete technic of fitting Koromex vaginal diaphragms. *(b) The Doctor and Contraception.* Replies to questionnaire sent to physicians to determine the type of contraceptive methods used by the profession. *(c) Proposed Standards for Vaginal Jellies and Vaginal Diaphragms.* A guide to the use of these products in contraception. Holland-Rantos Company, Inc., New York, N. Y.

MR 15 *Metaphyllin (Aminophyllin).* A compilation from recent works on aminophyllin. I. "Metaphyllin" aminophyllin for Heart and Vascular Diseases. II. "Metaphyllin" aminophyllin for Water Retentions (edema, ascites). Complete information is given regarding the administration and dosage. Byk, Incor-

(Continued on page 22)

MAIL THIS COUPON FOR BOOKLETS

List by numbers the booklets that you wish. Clip and mail to Medical Record, 20 Vesey Street, New York, N. Y.

Nos. ....

....

....

Name ....

Address ....

City .... *State* ....

ERGOAPIOL (SMITH)

ERGOAPIOL
M.H.S.

Amenorrhea - Dysmenorrhea
Menorrhagia - Menopause

Today, as for years, Ergoapiol (Smith) is the accepted medicament in combating those menstrual anomalies which may be traced to constitutional disturbances; atonicity of the reproductive organs; inflammatory conditions of the uterus or its appendages; mental emotion or exposure to the elements.

The physician readily can ascertain whether his prescription for Ergoapiol (Smith) has been correctly filled by dividing the capsule at the seam, thus revealing the initials M. H. S. embossed on the inner surface, as shown in photographic enlargement.

Literature on request.

MARTIN H. SMITH CO···150 LAFAYETTE ST···NEW YORK CITY

Effective local therapy for
HAY FEVER PATIENTS

The chief complaint in the average case of Hay Fever is the ocular and nasal irritation, which so often is a source of extreme discomfort. Observations of thousands of patients demonstrate that prompt relief of symptoms is obtainable with

ESTIVIN

A simple test is convincing. Instill a drop of this extract in each eye and note the results. Within a few minutes the conjunctival congestion disappears, lacrimation ceases and clear vision is restored. A little later the nasal irritation subsides or is greatly reduced. Two or three instillations daily keep the average patient comfortable during the entire hay fever season.

Literature and samples sent upon request

In more severe cases of hay fever, applications may be made as often as necessary to control the symptoms.

Schieffelin & Co. • 20 Cooper Square • New York, N. Y.

camirol

For treatment of

Sinusitis
Bronchial
and
Respiratory Affections

camirol formula contains camphor, almond oil, menthol, iodoform, and iodides, U. S. P.

camirol increases phagocytosis, is antiseptic, has stimulating effects and is easily eliminated through the lungs.

camirol injections can be administered into the deltoid muscle in the interscapular region, or preferably in the muscular gluteal portion of the buttock. All antiseptic precautions should be observed, and a syringe used which is easily sterilized.

12—1 c.c. "Klic-off" Ampoules

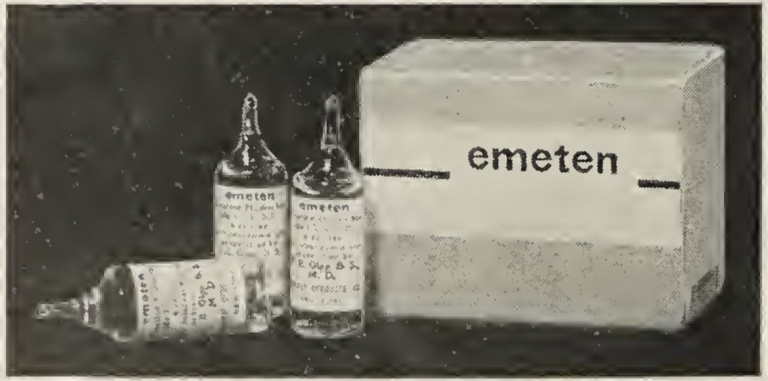
emeten

Emeten-Hydrochloride 1% U.S.P.

FOR INTRAVENOUS USE IN THE TREATMENT OF

Ulcers of Stomach
or Duodenum
and
Amebic
Dysentery • Colitis

6 and 12—6 c.c. "Klic-off" Ampoules



Literature sent on request

camirol products company

133 West 41st Street New York, N. Y.

Manufacturers and Distributors
Fine Drugs and Pharmacals

Phone: WIsconsin 7-4271

porated, New York, agents; General distributors: Adolphe Hurst & Co., Inc., 330 West 42nd Street, New York, N. Y.

MR 16 *Mercurochrome.* The purpose of this booklet is to outline the present status of Mercurochrome. The first section deals with the chemistry of the product and other sections deal with the bacteriology, toxicity, physical and physicochemical properties, and the various uses of the drug. Hynson, Westcott & Dunning, Baltimore, Maryland.

MR 17 *Endo Products.* A price list of Endo intramuscular and intragluteal ampoules. Intravenous Products Company of America, Inc., 251 Fourth Ave., New York, N. Y.

MR 18 *(a) Feeding Diabetic Patients—Young and Old. (b) Feeding Sick Patients, Young and Old. (c) Reducing Diets and Recipes.* These booklets were written by and the diets prepared under the direction of leading physicians. The recipes have been prepared, analyzed and tested by an authoritative dietitian in collaboration with the Knox Gelatine Laboratories. Charles B. Knox Gelatine Company, Johnstown, N. Y.

MR 19 *(a) Kolag.* Plain, alkaline and emulsion. A short treatise on the treatment of intestinal complaints. *(b) Do You Treat Colon Cases?* Kolag (powder) useful in intestinal complaints, particularly colitis. The Kolag Company, 674 Amsterdam Ave., New York, N. Y.

MR 20 *(a) Physician's Bulletin.* These bulletins, published at regular intervals, contain information concerning the Lilly products with results of research work carried on in the Lilly Laboratories. *(b) Alomin Lilly.* A flavored powder of Kaolin, Aluminum Hydroxide, Calcium Carbonate, Bismuth Subcarbonate, and Acacia. An antacid and adsorbent powder for treatment of diseases of the digestive tract. Eli Lilly & Co., Indianapolis, Indiana.

MR 21 *Poisons and Antidotes.* This booklet contains a list of the principal preparations of the Maltine Company, with formulæ, indications, package size and dosage. Included in this booklet is a list of poisons and antidotes compiled by Dr. Alexander O. Gettler, Chief Examiner's Office, New York City. The Maltine Company, 60 Hudson St., New York, N. Y.

MR 22 *(a) Cod Liver Oil and Its Place in Modern Therapeutics.* A catalogue of McKesson's Cod Liver Oil Vitamin products. *(b) Silver-Col.* This product offers all the advantages of a solution of organic silver in oil without the disadvantages of ordinary solutions. *(c) Rugar.* A discovery for x ray visualization of the rugæ of the gastrointestinal tract. *(d) Diseases Arising from Calcium-Phosphorus Deficiencies.* Their treatment with the minerals of milk. An authentic work compiled from the literature and approved by the Committee on Milk Minerals of Rutgers University. McKesson & Robbins, Inc., Bridgeport, Conn.

MR 23 *(a) Diothane.* Description of a new local anesthetic. *(b) Coughs and Their Treatment.* A short treatise on the general subject of cough with a description of each of the cough preparations manufactured by The Wm. S. Merrell Company, Cincinnati, Ohio.

MR 25 *The Way to Foot Health.* This booklet contains interesting information concerning the cause of foot troubles, emphasizing the importance of proper posture. A series of exercises for strengthening the feet are presented. Musebeck Shoe Company, Danville, Ill.

MR 26 *(a) Encyclopedic Diagnosis of Diseases of the Liver and Biliary System. (b) Encyclopedic Diagnosis of Nervous and Mental Diseases. (c) Diagnosis of Genito-Urinary Diseases and Urinalysis. (d) Diagnosis of Cardiovascular Diseases.* These booklets were prepared by Dr. Henry I. Berger and will be found valuable not only by the medical student, but also the physician who will find these short treatises handy reference books in genitourinary diseases, cardiovascular diseases, diseases of the liver and biliary system and nervous and mental diseases. Od Peacock Sultan Co., 4500 Parkview Place, St. Louis, Mo.

MR 27 *Picochrome.* A new water-soluble dye of high bacteriostatic power and low toxicity for oral use. Picochrome Corporation, New York, N. Y.

MR 28 *(a) Keep Them Fit to Fight.* A message to doctors by William Seaver Woods, L.H.D., for twenty-eight years editor of *Literary Digest. (b) The Improved Hyperol.* A uteroovarian tonic and corrective suggested for the relief and correction of functional disorders of women. The Purdue Frederick Co., 135 Christopher Street, New York, N. Y.

MR 29 *(a) Verodigen (Gitalin Amorphous).* Purified digitalin principle, for oral administration in cardiac diseases. Among the advantages of Verodigen are its uniform composition, unvarying potency, rapidity and completeness of absorption, rapid therapeutic effect, persistence of action and protracted stability. *(b) Optochin Base in the Treatment of Lobar Pneumonia.* With indications for use, technical administration, results of treatment and special instructions. *(c) Strophanthin Solution. (*1:2000 "B. & S." "Kombéin"*).* For intravenous injections in acute and chronic cardiac insufficiencies. The physiological action of Strophanthin is described with indications for its use and details regarding administration and dosage. Rare Chemicals, Inc., Nepera Park, New York.

MR 30 *The Professional Preparations of the Laboratories of Reed and Carnrick.* A catalogue of the preparations of Reed & Carnrick, pioneers in endocrine therapy, with complete list of prices. Reed & Carnrick, Jersey City, N. J.

MR 31 *Disorders of the Female Sex Cycle.* Schering Corporation, Bloomfield, N. J.

MR 32 *(a) A Modern Treatise on Hay Fever.* Its Prevention and Treatment. With recommendations on the use and application of Sherman pollen extracts and vaccines. *(b) Treatise on Our New Biologic.* Gon A-Vee, a new, effective biologic for specific and nonspecific urethritis. *(c) Modern Treatment of Respiratory Infections.* Presenting a discussion of the value of vaccines in these conditions and explaining the causes of failure. *(d) Erysipelas.* Observations regarding 1,193 cases by Dr. Archibald L. Hoyne of Chicago. G. H. Sherman, M.D., Inc., Detroit, Mich.

MR 33 *(a) Cough. Its Symptomatic Treatment.* Presenting the formula of Glykeron, an ethical cough mixture in use for many years. *(b) Menstrual Disturbances.* The discussion of various menstrual disturbances such as amenorrhea, dysmenorrhea, menorrhagia, metrorrhagia and irregularities incident to the climacteric. Martin H. Smith Co., 150 Lafayette St., New York, N. Y.

MR 34 *(a) Anterior Pituitary Extract Squibb.* An alkaline aqueous extract containing the growth, thyrotropic and six complementary factors of the anterior pituitary. *(b) Follutein Squibb.* A sterile, glycerine solution of the anterior pituitary-like sex hormone. *(c) Tablets Dicalcium Phosphate Compound with Viosterol Squibb.* A readily absorbed and suitably balanced source of calcium and phosphorus with sufficient Vitamin D to assist in their adequate utilization. E. R. Squibb & Sons, Inc., New York, N. Y.

MR 35 *Magma Sulforata.* The rational treatment for acne and rosacea. The stable preparation of Lotio Sulphurata in greaseless cream form. Sulfor-Ex Company, Inc., 311 West 59th St., New York, N. Y.

(Continued on page 24)

Some things WE KNOW

We know that when Iodine is chemically changed into its iodine forms, such as are usually employed for oral administration, the germ-killing power of Iodine is lost.

We know that Syphilis, some types of Arthritis and many other disease conditions have a bacterial etiology.

We know that Iodine—in the test tube—will kill all such pathogenetic germs; that iodides will not.

Some things WE BELIEVE

We believe that Iodine, ingested as such, reaches the blood stream and permeates the tissues of the body in other than iodide forms.

We believe that iodides, ingested as such, exist in the human body only as iodides.

We believe there is just as great a difference in the physiologic effects and therapeutic influences of Iodine and of iodides in internal therapy as is known to exist when applied to the exterior parts of the body—or as is shown in bacteriological experiment.

SYNIODIN

enables the internist to invoke all of the powers and potencies that are inherent in Iodine, but absent in iodides.

ITS RECORD

in the treatment of post-syphilitic syndromes, arthritis, thyroid imbalances and dysfunctions and dozens of other disease conditions substantiates our claim that it has greatly enlarged the field of internal medication.

IN 3 YEARS

thousands of physicians have used Syniodin to correct chronic disease conditions which had failed to respond to all other treatment.

You ought to know about Syniodin, and we will gladly send interesting and informative literature if you will ask for it.

Syniodin is sold only in bottles of 100 5-grain tablets directly to physicians.

The BLUE LINE CHEMICAL CO.
SAINT LOUIS, U. S. A.

MR 36 *Wampole's Specialties.* With formulas, indications, dosages and other related information. Henry K. Wampole & Company, Inc., 440 Fairmount Ave., Philadelphia, Pa.

MR 37 *(a) The Meaning of Gastric Hyperacidity.* Presenting distinction between simple hyperchlorhydria and gastric ulcer with treatment by Cal-Bis Ma. *(b) A Lesson from the Rabbit's Leg.* Findings in experimental work on rabbits. The physical disorders observed resulting from disturbances of the acid-alkali balance are presented. *(c) Diagnostic Significance of the Stools.* Tables are presented giving the diseases which may be diagnosed from the condition of the bowels and the appearance of the stool. William R. Warner & Co., Inc., 113 W. 18th St., New York, N. Y.

MR 38 *(a) Urinary Tract Infections in Children and Adults.* The value of urotropin in their treatment. *(b) Hemorrhoids.* Differential symptoms and suggestions for treatment. The value of Anusol suppositories is presented. *(c) The Hypnotic for Three-Way Use.* This hypnotic is Medinal which is soluble barbital and can be administered orally, hypodermically or rectally. Medinal is also an efficient sedative. Schering & Glatz, Inc., 113 West 18th St., New York, N. Y.

MR 39 *(a) Novaldin.* Analgesic, antipyretic, antirheumatic, for oral use and injection. *(b) Novocaine.* A local anesthetic for general surgery, gynecology, urology, ophthalmology, rhinolaryngology and other specialties. *(c) Devegan.* A new effective treatment for leucorrhea which destroys the Trichomonas and restores normal bacterial flora. *(d) Mebaral.* A sedative and antiepileptic. *(e) Adagol.* Winthrop Vitamin A and D Concentrate (from fish liver). Adagol in oil is indicated in all conditions in which cod liver oil has proved of value. These conditions include rickets, tetany, osteomalacia, and other conditions of malnutrition. *(f) Cyclobis.* This is a new organic bismuth compound well adapted for the treatment of congenital syphilis because of its excellent tolerance. It is used in conjunction with arsenicals. Winthrop Chemical Company, Inc., 170 Varick Street, New York, N. Y.

MR 40 *Taurocol.* This product is a stimulant of the bile secretions. It is a scientific combination of bile salts with cascara sagrada and phenolphthalein. The Paul Plessner Co., Detroit, Mich.

MR 41 *Incretone.* G. W. Carnrick Co., Newark, N. J.

MR 42 *Whooping Cough.* An interesting pamphlet on whooping cough and its treatment. With a report of 150 cases. Gold Pharmacal Company, New York, N. Y.

MR 43 *(a) Quinine Formulary. (b) Oral and Local Pyridium Therapy in the Treatment of Genitourinary Diseases.* Presenting an outline of Pyridium therapy in treating the genitourinary infections commonly met in practice. There are many illustrations in color. Merck & Co., Rahway, N. J.

MR 44 *(a) Calevate—The Original Solution of Calcium Levulinate.* A new calcium salt indicated for use where calcium must be administered rapidly and efficiently. *(b) The Toxin Magnet.* The properties of Crookes Collosol Kaolin are presented with indications for external and internal use. *(c) Your Patient is a Chemical Complex and Manganese Plays an Important Rôle.* Indications for the use of Collosol Manganese are given such as acne, boils, psoriasis, sinusitis, eczema, arthritis, and so on. *(d) The Colloid Treatment of Gastric Hyperacidity and Peptic Ulcer.* The value of Crookes Lactalumina in the treatment of gastric hyperacidity and peptic ulcer is given and its action and advantages compared to other alkalies. Crookes Laboratories, Inc., 145 E. 57th St., New York, N. Y.

MR 45 *(a) Asthma.* Many physicians claim Goat Milk to be a specific in asthma and other allergic conditions. *(b) Eczema.* By the use of Meyenberg Evaporated Goat Milk this condition is often cleared up entirely. *(c) Difficult Infant Feeding.* Because of its ready digestibility, Goat Milk is considered by many authorities as the logical food for infant feeding. *(d) In Predisposition to Tuberculosis.* The use of Goat Milk in these conditions has been found to be efficacious. *(e) Evaporated Goat Milk.* This product is pure whole goat milk. It is a natural health builder, pleasant in taste, easy to digest, and alkaline in reaction. It has high nutritional and therapeutic value. Goat Milk Products Co., 1039 South Olive Street, Los Angeles, Calif.

MR 46 *Sterisol Ampoules.* These ampoules which are made of Pyrex have distinct advantages over the ordinary ampoule and mark an important advance in intravenous therapy. There is included a complete price list of intravenous solutions in Sterisol Ampoules. Sterisol Ampoule Corporation. 37-02 Northern Boulevard, Long Island City, N. Y.

MR 47 *(a) Pomeroy Surgical Appliances.* A catalogue of appliances in which emphasis is laid upon those from which variations can be made for special cases. Included also are new ideas in belts, special corsets and orthopedic appliances. *(b) Abdominal Supports.* A catalogue of supporting belts illustrating only the basic styles. Variations are made according to the needs of the patient. *(c) Pomeroy Quality Service.* An interesting pamphlet summing up the great care used in the manufacture of artificial limbs. The Pomeroy Company, 16 East 42nd St., New York, N. Y.

MR 48 *The Therapeutic Value of the Mineral Waters of Vichy.* The composition of the principal springs of Vichy are presented with indications for their therapeutic use. A medical bibliography is appended. American Agency of French Vichy, Inc., Kent Ave. and North 3rd Street, Brooklyn, N. Y.

MR 49 *(a) The Mystery of Sleep.* The physiology of sleep is described with its biological significance. The action of hypnotics in sleep induction is described. In the Roche Laboratories research has been conducted for many years and in Allonal they believe they have produced a preparation which possesses marked sedative, analgesic and hypnotic properties. It is an interesting booklet. *(b) The Doctor Visits 'Roche'.* A description of the experimental laboratories of Hoffmann-La Roche. It is well illustrated. *(c) The Histidine Treatment of Peptic Ulcer.* With a note of fifty-two cases by Dr. Ernest Bulmer of London, England. *(d) Spasmalgin.* The New 'Roche' *Spasmolytic.* An effective remedy for the relief of pain due to smooth muscle spasm. It has triple action. It is spasmolytic, analgesic and sedative. *(e) When Chemists Turned from Gold to Drugs.* Pantopon is made from the juice of the poppy. Among the indications for the use of Pantopon are coughs, acute indigestion, gallstone and renal colics, painful fractures, carcinoma, heart conditions, pneumonia, pains of labor, and so on. In fact in all conditions relief from pain is demanded. *(f) Romance of Digitalis.* The story of the discovery of digitalis, its assay and control. There is an added chapter giving the indications for its use. Hoffmann-La Roche, Inc., Nutley, N. J.

MR 51 *(a) Normet.* This is a chemical product put up in ampoule form for intravenous use. It has been used with great success both in France and the United States to take the place of blood transfusions. The indications for its use are presented. *(b) Sarapin.*

(*Continued on page* 26)

SENG *favorably alters*

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